INTERLANGUAGE AND TEMPORAL EXPRESSIONS: THE DEVELOPMENT AND USE OF TENSE-ASPECT AND SOME TIME ADVERBIALS IN CANTONESE LEARNERS

By

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ABSTRACT

There have been relatively few developmental studies in SLA research focusing on the use of tense-aspect and time adverbials in a formal learning setting. Fewer still with Cantonese learners. The present study was intended to fill this knowledge gap. Specifically, it aimed to explore, and give an informed answer to, each of the questions below:

1. What do the developmental patterns look like when Cantonese learners of English come to learn and use tense-aspect and time adverbials? Are there distinct developmental stages across the secondary spectrum?

2. Are there distinct areas of difficulty in the use of tense-aspect and time adverbials?

3. Is there a developmental role for the learners' mother tongue?

4. What are the patterns of error? Are they relatable to levels of proficiency?

5. Is the use of the communication strategies of message abandonment and restructuring developmentally based?

6. Does the learners' use of tense-aspect and time adverbials exhibit systematicity and variability?

7. How does the linguistic evolution of some tense-aspect and adverbial functions proceed?

Subjects from five secondary school grades (Forms 1 - 5) were recruited, each group with thirty pupils (N=150). Two elicitation tasks were administered: letter-writing and fill-in-blank.

General analyses of the data revealed a highly significant developmental trend as well as distinct developmental stages and distinct areas of difficulty.

Results of specific analyses revealed that message restructuring and language transfer were developmentally based, but message abandonment was not. On the basis of the related qualitative analyses, the commonly held view on message abandonment and restructuring was challenged. Analyses of VP-omission and VP-misformation also revealed a developmental base for them.

The analyses of the Present-Perfect related confusion areas revealed an interesting phenomenon: the 'skewed reciprocity of influence' in members of a confusion pair. Two additional but separate analyses of the Present Perfect errors further revealed convergent patterns of confusion. Specific-context analyses indicated interesting quantitative and qualitative changes over time in the Present Perfect and durative adverbials. The development and use of the Present Perfect and durative adverbials exhibited both 'systematicity' and 'variability'.

The study ended with some implications for further research and for the classroom.

Declaration

I declare that this Thesis has been composed exclusively by myself and that the work involved is entirely my own.

Joseph HUNG

CONTENTS

CHAPTER ONE

SOCIOLINGUISTIC CONTEXT AND SCOPE OF STUDY

The purpose of this short introductory chapter is to set the scene for the subsequent chapters. It describes very briefly the sociolinguistic and educational background of the subjects (or more generally, the background of Cantonese learners of English in Hong Kong), explains the reasons for choosing the areas of study and outlines the research questions and the major hypotheses to be verified, as well as the structure of the thesis.

1.1. The Sociolinguistic and Educational Context

Since she first became a British colony in 1842, Hong Kong has grown and developed from a 'barren rock' with a few fishing villages to a highly successful economic centre in world trade and a relatively cosmopolitan city with about five and a half million people living in about four hundred square miles of largely hilly land.

Over 98% of the 5.5 million population are of Chinese origin, whose native tongue is Cantonese or who use Cantonese as the lingua franca. (Caontese is also the dominant dialect or lingua franca in Southern China.) The other 2% comprise expatriates of different linguistic backgrounds, who are either in the civil or military services (chiefly British) or in the financial or business community. The lingua franca among these expatriates is English.

Before 1971, English was the only official language recognised in the legal and civil documentation and transaction. This naturally created a 'diglossic situation', in which English was the language for authority, power, and formality, and Cantonese/Chinese was the language for ordinary social encounter and in family life. The diglossic functions of English and Chinese were strengthened by the

practices in the Civil Service recruitment or business executive recruitment. Here, English proficiency was the major language criterion, among others, for selecting middle or senior administrative positions.

The situation described in the last paragraph remained very much the same in the 70's and early 80's, despite the fact that Chinese was made another official language alongside English in February 1974.

[There have been signs of change, however, in the diglossic structure since the signing of the Anglo-Chinese (or Sino-British) Agreement in 1984, in which Britain agreed to return the whole of Hong Kong to China in 1997. In the past two or three years, more and more importance has been attached to Chinese in governmental affairs and in business/multi-national firms interested in China trade. But this development has no direct relevance to the present study and therefore will not be pursued further.]

Let us turn to the education system and the language in schools in Hong Kong. The education system comprises the following levels (with age range):

1. Two or three years of kindergarten education (ages 3/4 - 5);
2. Six years of primary education (ages 6 -11);
3. Three years of junior secondary education (ages 12 - 14);
4. Two years of senior secondary education (ages 15 - 16);
5. One or two years of sixth-form education (ages 17 - 18);
6. Three or four years of university or higher education.

Alongside the academic levels are a number of selection and allocation procedures. The two that are important, in terms of a pupil's academic career, and relevant to our study are the following:

(a) The Junior Secondary Education Assessment, which selects and

allocates Secondary/Form 3 leavers (age 14) to Form 4 places in the public sector, i.e. places in government, government-aided, or government-subsidized secondary schools. [74 percent of the Form 3 leavers got allocated in 1985, according to the Hong Kong Government's Annual Report: Hong Kong 1986.]

(b) The Hong Kong Certificate of Education (HKCE), which is awarded to secondary pupils who have successfully completed a five-year secondary course and have passed at least five subjects, one of which must be English. (A failure in English means a failure in the entire examination because no proper certificate will be awarded with a failure in English.) The HKCE is also used to select pupils for the sixth-form education, which leads to a further examination for admission to one of the two universities, the Hong Kong Polytechnic, or other tertiary institutions local or abroad.

As regards the medium of instruction in schools, Chinese (Cantonese) is the instruction medium in both kindergartens and primary schools. English is learned as a foreign language subject from Primary One onward. (In fact, English is taught as early as Kindergarten Two in kindergartens —— largely lexical items referring to concrete objects (e.g. apple, boy, cat, car, dog, egg, etc.) and introducing the alphabets).

The medium of instruction at the secondary level varies with the type of school: 'Anglo-Chinese' or 'Chinese Middle'. In the former, English is the putative language of instruction (in reality, Chinese is often used to supplement the 'English medium teaching', particularly with the junior-secondary pupils). The Chinese Middle schools use Chinese as the medium of instruction, learning English as a school subject (similar to the learning of French in Britain). In 1985, the total enrolment in Anglo-Chinese schools was 370615, compared with 35295 in Chinese Middle schools. In other words, over 90% of the secondary school pupils studied in Anglo-Chinese schools.

The lamentable fact to note is that the majority of pupils/learners fail or have failed to master English at a sufficient level to allow them to think and express clearly. The basic problem/difficulty is that Hong Kong is still very much a monolingual society, with a Chinese majority population of over 98%. The sociolinguistic climate and environment is not very conducive to the universal use of English as the medium of instruction and learning, or to the learning of English in general. A number of Anglo-Chinese schools and pockets of pupils have, no doubt, been quite successful in their teaching and learning through English, but the majority, unfortunately, have not.

In summary, English in Hong Kong represents (political and economic) power and (social) prestige that many socially mobile parents would like their children to strive for. Some children/pupils live up to their parents' and their own aspirations in the course of academic competition, given their motivations and efforts, together with the school and parental support. But the number of this group is not too big. The great majority of pupils drop out at some stage in the marathon competition of learning through a non-native language.

1.2. The Aims of the Study

The primary purpose of the study was to describe the development and use of tense, aspect and time adverbials in Cantonese learners of English in a formal-learning setting. It is generally agreed that there are roughly two broad approaches to the study of second language acquisition(SLA): theory building, and data description. The present study falls in the second category. It must be made clear that theory or model building is important for the advancement of SLA research (as it is important for all (social) sciences). But there are two considerations which would place data description/empirical investigation in the centre of SLA activity at the present stage of development.

First, SLA is still a relatively 'young' discipline —— in its teens. It is relatively 'inexperienced', to continue with the personification. Its exposure to the 'outside world' of empirical data has been rather restricted (cf. subsection 2.7.1) —— obtaining data largely from studies of grammatical morphemes and some familiar sentence processes. Surely, the field of SLA will benefit tremendously from having empirical experience/data from other corners of the 'world'. Second, it is truism to point out that a sound SLA theory is built on empirical data which are representative of not just one linguistic area or level, but many areas/levels (and other non-linguistic domains as well).

A review of the literature revealed that there were very few frontal attacks on the development and use of tense-aspect and time-adverbials in SLA research; fewer still on Cantonese learners acquiring and using tense-aspect and time adverbials, from a developmental perspective. The gap required filling, and the present study was conceived in that light. It was hoped that the resultant description and discussion would not only lead to a better understanding of (i) the nature of the learning and developmental process in Cantonese learners and (ii) the kind of difficulty facing them, but also contribute to the general pool of 'cross-lingusitic' data on which comparisons can be made and more comprehensive theories/models can be built.

As regards the selection of linguistic areas for investigation, the following are the main reasons for focusing on tense-aspect and time adverbial.

a) As has been noted, there were very few developmental studies on tense-aspect and time adverbials in SLA research; it was particularly so with Cantonese learners of ESL. A study of these areas with Cantonese learners would contribute to the knowledge or data pool of second language acquisition.

b) As will become clear in subsection 3.3.1, Cantonese (or Chinese in general) does not have the grammatical category of 'tense'; it does not rely on the verb-form (i.e. verb inflection) to locate

or indicate that time of an action or state, which is normally indicated by a time adverbial, a few aspect affixes/markers, or derived from the discourse or extralinguistic context. It would be interesting to see how Cantonese learners develop the use of tense-aspect and time adverbials.

c) Another important reason for studying tense-aspect is that the English tense-aspect system is one of the most difficult and intractable areas of grammar for the teacher to teach and the pupil to learn effectively. It is difficult to teach or to learn because the tense-aspect usages cannot be easily explained by, reduced to, or subsumed under a manageable set of rules. The tense-aspect form of a verb is determined not only by the temporal frame; it also interacts with modality, semantic and idiosyncratic properties of the verb, the speaker's subjective perception of time (see subsection 3.2.2), etc. The form and function of the English tense-aspect are, therefore, not always in a one-to-one correspondence; and this misfit creates usage problems which non-native teachers and pupils find extremely difficult to tackle. An understanding of Cantonese learners' development and use of tense-aspect and the related adverbials is a first, necessary step towards developing more effective classroom materials and procedures.

1.3. Research Questions and Major Hypotheses

In the context of the general objectives/purposes stated in 1.2 [i.e. (i) to make a small contribution to the second-language acquisition (SLA) knowledge/data pool, (ii) to see how Cantonese learners use and develop tense-aspect and time-adverbials, and (iii) to describe more precisely the tense-aspect-related and time-adverbial-related problems confronting the Cantonese learners of English in a formal setting], the following research questions were asked:

1) What do the developmental patterns look like when Cantonese learners of ESL in a formal setting come to learn and use tense-aspect and time adverbials? Are there distinct developmental stages across the secondary spectrum?

2) Are there distinct areas of difficulty in the use of tense-aspect and time adverbials?

3) What are the patterns of error? Are they relatable to particular levels of proficiency or stages of learning?

4) Is there a developmental role for the learners' mother tongue in second-language use?

5) Is the use of some communicative strategies (e.g. 'message abandonment', 'message restructuring', etc.) developmentally based?

6) Is it the case that the development and use of tense and aspect exhibits systematicity and variability?

7) How does the linguistic evolution of some tense-aspect/time-adverbial functions proceed? [Or how do Cantonese learners develop the use of tense-aspect and time adverbial?]

These research questions provided the general direction, and helped to define the scope, of the present study. Answers to the above questions would lead to the realization of the general purposes/aims of the study.

In order to obtain more informative and specific answers, five specific, testable Null Hypotheses were derived and formulated out of the first five questions, and a sixth Null Hypothesis, which was suggested by the results of the first study (cf. Chapter Four), was added, making a total of six Null Hypotheses. The hypotheses tested were as follows:

Hypothesis 1 (H_o): There is no difference between the means of the subjects of the five secondary levels, regarding the use of tense and aspect [as suggested by results of the first study], and regarding the use of time adverbials.

Hypothesis 2 (H_o): There are no distinct developmental stages across the secondary school spectrum.

Hypothesis 3 (H_o): There are no distinct areas of difficulty in the use of tense-aspect.

Hypothesis 4 (H_o): There is no relationship of error-types in tense-aspect usage to the learners' proficiency levels/ stages of learning.

Hypothesis 5 (H_o): The learners' mother-tongue does not have any developmental role in their use of time adverbials.

Hypothesis 6 (H_o): The communication strategies of message abandonment and message restructuring are not developmentally based.

The subjects' performance data were quantified and subjected to statistical treatments, testing the above six hypotheses.

The last two research questions (i.e. Nos. 6 and 7, on the systematicity-variability issue and the linguistic evolution of some functions) were not explored experimentally; instead, the exploration adopted a more qualitative approach. It should be emphatically pointed out that second language acquisition (SLA) research should not be too obsessed with either the quantitative or the qualitative approach to problems; both have their strengths and weaknesses; each provides insights into the problem(s) the other may not be able to. The 'methodological principle' of the present study has kept as closely as possible to the 'Golden Mean'.

1.4. Structure of the Thesis

The thesis comprises eight chapters, including the present one. Chapter Two contains a review of the literature, which consists of seven sub-parts. it begins with a glance at the history of second language acquisition (2.1) and with a summary of three pioneering and seminal works which helped to establish SLA as an independent disipline (2.2). The short history witnesses the rise and fall and re-emergence of 'language transfer'. The third part examines a number of studies which represent different approaches to and perspectives on the notion of 'transfer' (2.3). The fourth part reviews the 'non-developmental' as well as developmental studies of tense-aspect acquisition. The studies reviewed provide useful information about the various approaches and methodologies to the problems (2.4). The fifth part reviews a few SLA studies of time adverbials (2.5). The sixth part reviews a few typologies of communication strategies and discusses a few key notions, including 'formal reduction', 'semantic reduction', 'simplification', and 'communicative effectiveness' (2.6). The seventh part discusses some of the methodological problems in SLA research, particularly the problem in determining the intended function of an interlanguage form when the linguistic context/structure does not provide any help (2.7). The solution to the problem is a precondition for a proper study of communication strategies such as 'message abandonment' and 'message restructuring'. This methodological challenge is taken up in Chapter Five.

Chapter Three describes the tense-aspect (T-A) systems and time adverbials in English and Cantonese. The first part of Chapter Three describes the tense-aspect systems in English (3.2) and Cantonese (3.3) separately and ends with some comparative/contrastive observations (3.4) and some expected behavioural tendencies of the learners (3.5). The second half of Chapter Three examines the structural types, the structural properties and the relative position of time adverbials in English and in Cantonese (3.6) and ends with some comparative/ contrastive statements (3.7) and some expected behavioral tendencies of the learners (3.8).

Chapter Four reports on the failure of the first attempt in studying the development and use of tense-aspect in Chinese learners of English. The basic problem was with the 'inappropriate data' coming from the subjects' class- and home-work in compositions. The lesson learned in the first study was incorporated in the design of the second, main study.

Chapter Five describes the design of the second, main study. It begins with a description of the subjects (5.1). It then describes how the design of the letter-writing elicitation task came into being and how it would tackle the problem of identifying and determining the intended function/message of the learner's ill-forms or misformations (5.2.1). It then describes the design of the fill-in-blank elicitation task (5.2.2). The data administration and collection procedures are then described (5.3). Finally, it discusses the criteria and procedures used in processing the tense-aspect and time adverbial data, as well as the message abandonment, message restructuring and language transfer data (5.4).

Chapter Six presents the results of the study. It is a lengthy chapter and consists of three main parts. Part One (6.1 to 6.5) presents results of three general analyses: two on tense-aspect (6.1 and 6.2) and one on time adverbials (6.4). The three analyses aim at finding out whether there are distinct developmental stages and areas of difficulty and three hypotheses are tested. Part Two presents results of five specific analyses of tense-aspect and time adverbials. They are VP-omission (6.6), VP-misformation (6.7), message abandonment (6.8), message restructuring (6.9), and language transfer (6.10). The analyses aim at finding out whether each of the five phenomena is developmentally based. Three more hypotheses are tested here. Part Three presents results of four error analyses: three on the Present Perfect (6.12, 6.13, and 6.14), and one on Durative adverbials (6.16). The analyses aim at finding out the linguistic evolution of the Present Perfect and the Durative adverbial, as well as the systematicity/variability of language development.

Chapter Seven recapitulates and discusses the major findings of the study. It begins with a review and discussion of the developmental pattern and stages (7.1). The discussion moves on to the relative difficulty of tense-aspect categories and time adverbials (7.2). The third part of the discussion looks at some confusion areas (7.3). The fourth part discusses the developmental significance of VP-omission and VP-misformation and the possible role of the mother tongue (7.4). It then discusses the analytical problems with message abandonment (MA) and message restructuring (MR) and suggests that the cause of MA and MR need not be the learner's linguistic deficiency (7.5). The next part discusses the transfer contexts and brings together transfer, message abandonment and restructuring within a developmental framework (7.6). The last part makes a few discursive observations on some methodological points (7.7).

Chapter Eight makes a few implications for SLA research and for the classroom, on the basis of some results of the study.

CHAPTER TWO

REVIEW OF THE LITERATURE

Introduction

In the following review of research literature on second language (L2) acquisition and learning, we are basically interested in 'sequential' learning settings where L2 acquisition is non-simultaneous, i.e. L2 is acquired or learned after having more or less acquired the basics of the mother tongue.

It should be pointed out that the review is highly selective. Many important studies are left out because they lie outside our immediate attention and interest.

The review consists of seven parts, each having some bearing on our investigation and discussion. It begins with a glance at the history of second language acquisition/learning over the past thirty years or so, followed by the second part summarizing three pioneering and seminal works which helped to establish second language acquisition (SLA) as an inedpendent field of study. These two parts provide a proper setting for the other subsections in Chapter Two.

The third part of the literature review summarizes some transfer studies, highlighting the different approaches, past and present, to (language) transfer. Some of the theoretical issues discussed in the reviewed studies will be taken up when we come to discuss the results of the (language) transfer analysis in the present study (cf. 6.10 for the results of the transfer analysis).

The fourth and the fifth part review acquisitional studies on tense-aspect and time adverbials in English. These studies provide a number of perspectives and analytical techniques towards tense-aspect and time-adverbial analyses. Some of the issues and techniques were incorporated into the design and some analyses of the present study.

The sixth part reviews a number of studies dealing with the psycholinguistic processes and strategies in second language performance. They provide a descriptive and semi-explanatory framework against which part of the performance data/results will be discussed. Three of the strategies reviewed triggered off three specific analyses in the present study, i.e. the analyses of language transfer, 'message abandonment', and 'message restructuring'.

The seventh part summarizes a number of views and criticisms on prevailing SLA methodologies and ends with a methodology favoured in the present study.

As is clear from the above outline of the present chapter, the scope and coverage of the review parallels the research questions raised in Chapter One.

2.1. A Glance at History

This section is meant to provide a historical setting for viewing the contemporary issues.

During the 50's and 60's, the most interesting issue in second language (L2) learning was 'transfer-interference'. The assumption underlying the issue is that when a person comes to learn a new, second language, he will tend to impose/transfer his native language (L1) patterns and meanings onto L2 use (Lado 1957). Errors are expected from transfer when L1 and L2 differ, i.e. 'negative transfer' or 'interference'.

Influenced by the behaviorist habit-formation theory of the time, proponents and advocates of the position tended to see language learning as a process of correct habit formation, and take interference as an old habit (L1 use) hindering the formation of a new habit (L2 use). Within this framework, the role of 'creative construction' on the part of the learner is ignored, and the preventive role of the language teacher emphasized. L2 learning process is more or less seen as a teacher-correction-and-guidance one.

But in the mid/late 60's, there was a shift of focus in L2 research, being influenced by a shift in linguistics and in psychology to generative grammar and cognitive psychology. Language use was no longer thought to be simply a matter of 'stimulus and response', and language development just a process of correct habit formation. Since then, the focus of L2 learning/acquisition research has been on the learner and his learning/developmental process. More and more attention has been paid to his language system -- 'interlanguage' (cf.2.2.3), how he copes with learning and production in L2, the socio-psychological setting for his language development, and so on.

Within this broad framework, the L2 learner's speech at any point in the course of acquisition is considered the product of his 'systematic' attempt to deal with the target language (TL/L2) (Corder 1967). His erroneous attempts are not considered errors in the usual sense, but treated as product of his 'creative construction' process -- employing construction rules to formulate messages or 'testing his hypotheses about the nature of the language he is learning'. Here, the L2 learner is assigned a central role in the learning process.

During the 70's, a large number of proposals were developed to account for second language acquistion (SLA) or learning. Some of these include the following:

Interlanguage Hypothesis	(Selinker 1972)
Pidginization-Creolization Model	(Schumann 1974)

Creative Construction Hypothesis	(Dulay & Burt 1974)
Variability Model	(Dickerson 1975)
Neurofunctional Theory	(Lamendella 1977)
Monitor Model	(Krashen 1978)

A dominant issue during this period was concerned with the similarities and differences between L2 acquisition and L1 acquisition. Ellis (1985:9) summarizes the reasons why the focus was on this. First, if the process and product of SLA could be shown to be similar to L1 acquisition, then Lado's contrastive analysis hypothesis could be disproved and discredited. Second, many of the early SLA studies were inspired and motivated by results of L1 research, and so a comparison would not be out of place. Third, extrapolation from L1 acquisition theories made sense when SLA had few thories to offer.

There were two main schools of thought as regards the L1-L2 issue (Fry 1983). Those who subscribed to the 'creative construction' view tended to suggest that learning an L2 is essentially similar to acquiring L1. The reasons are:

a) both L1 and L2 learning represent conceptual learning;

b) there is often a pattern to the errors (i.e. 'systematic errors' in Corder's (1967) term) that L1 and L2 learners are prone to make — the so-called 'developmental errors';

c) we can often find a developmental sequence (of sub-stages) in L1 and L2 acquisition; and

d) learners of either L1 or L2 contribute actively to the process of learning by such devices as induction, deduction, hypothesis formulation and testing, concept formation, etc.

It should be pointed out that the emphasis here is on 'cognitive similarities' between L1 and L2 acquisition. And advocates of the L1 = L2 hypothesis tended to brush aside any significant influence of L1 on the learning of L2 (e.g. Dulay and Burt 1974).

Other researchers allowed that L1 and L2 learning processes

may be different (i.e. L1 ≠ L2) because:

a) the L2 learner is, by comparison, chronologically and cognitively more mature, and his more advanced communicational maturity as well as prior (L1 - based) knowledge of basic semantic concepts such as temporality, causality, etc. will necessarily influence his L2 acquisition process in terms of the way(s) he organizes what he perceives and what he produces (Kennedy 1973; Felix 1976 , 1978);

b) there is a motivational difference between L1 acquisition and L2 learning. For the pupil/learner, there is no real need to learn a second language to function well in ordinary social encounters -- hence 'its motivational vulnerability with all school subjects' (van Parreren 1975);

c) there is no one universal developmental sequence for the acquisition of a particular language, whether acquired as L1 or L2 (Wode 1976); and

d) there is not enough evidence for the hypothesis that the orders of acquisition of morphemes/structures are the same in L1 and L2 acquisition (Felix 1978; Wode 1981:50).

Supporters of the L1 ≠ L2 learning emphasize the 'serial' and the qualitative differences in L1 and L2 acquisition.

Despite the strong claim by Dulay and Burt (1974) that transfer from L1 to L2 is not a significant variable in L2 learning, L2 studies after Dulay and Burt's paper have continued to report evidence of L1 transfer in a large number of studies. Ellis (1985: 29) summarized some of these studies with error percentage provided: Tran-Chi-Chau (1974 - 51%), Mukattash (1977, 1978 - 23.5%), Flick (1980 - 31%), and Lott (1983 - 50%). To his list, we may add Arabski (1979 - 50%) and Ross (1976 - 31.4%). For a comprehensive review of L1 influence, see Gass and Selinker (1983) and Kellerman (1984).

Over the past few years, there has been a renewed interest

in the study of language transfer. One possible reason is that there has been a growing and expanding interest in interlanguage study, which, while focusing on the emergence and development of the learner's L2, almost necessarily involves an examination of the relationship between his native language (L1), the target language (TL/L2) he is learning, and his interlanguage (IL).

Another, and more important, reason lies in the modification or change of research questions and strategies. It has been demonstrated that the influence of L1 on L2 can be realized in a number of subtle ways which have escaped the notice of traditional CA-transfer analysis (Schachter 1974; Gass 1980, 1983, 1984; Rutherford 1982, 1983; Kellerman 1978, 1983; Zobl 1980a,1983, 1984). It is also clear now that a given error need not have a single cause. Errors may, for example, result from an interaction between transfer and typological organization (Rutherford 1983), between transfer and developmental factors (Zobl 1980a,1983), between transfer and universals/markedness (Gass 1980, 1983; Zobl 1984), or some other types of interaction.

With a change in perspectives and research strategies, recent investigations of language transfer have focused on questions of the following kinds, some of them being open ones:

What exactly is language transfer? How to identify it?

What can be or actually is transferred?

Where is language transfer more likely to occur?

When does transfer take place within a developmental sequence, if at all?

Are transfer and the developmentally-based processes mutually exclusive?

What is the relationship between language transfer and language typology? and between transfer and markedness/universals?

2.2. Three Pioneering and Seminal Studies

This section summarizes three pioneering and seminal works which have provided a number of concepts and terms that are taken for granted in the SLA literature nowadays.

2.2.1. Corder (1967)

Our literature review begins with the nature of the second-language learning process. Corder (1967), drawing on research in first language acquisition, postulated that 'the procedures or strategies adopted by the learner of a second language are fundamentally the same' as those by which L1 is acquired. He argued that the L2 learner, just like the L1 child, 'possesses an internal mechanism of unknown nature' which enables him to construct a grammar of the target language. In this context, the L2 learner's errors are seen to be similar to those of a child acquiring his L1. In both cases, the errors are 'systematic', reflecting the linguistic system he is using at a particular point in the course of his learning (Brown and Fraser 1964). The making of error, Corder maintained, is a 'necessary and unavoidable' step in the learning process of trial-and-error, a way for the learner to test his hypotheses about the nature of the target language he is learning.

2.2.2. Nemser (1971)

Building on Corder's (1967) notion of 'system' in the L2 learner's language, Nemser (1971) captured the dynamic nature of L2 learning by proposing the notion of 'approximative systems' (AS). An approximative system is defined as 'the deviant linguistic system actually

employed by the learner attempting to utilize the target language'.

The underlying assumption is (i) that 'the learner's speech at a given time is the patterned product of a linguistic system' (AS), distinct from L1 and L2 and internally structured; and (ii) that the approximative systems at successive stages of learning form an evolving series, each closer to the target.

According to the assumption, the L2 learner's systems are structurally organized but transient, subject to frequent change and reorganization. The picture we have is that L2 learning, same as L1 acquisition, is basically a dynamic, goal-oriented activity of increasing complexity (Corder 1977).

2.2.3. Selinker (1972)

With the ground work already done by Corder (1967) and Nemser (1971), Selinker (1972) came to formulate an answer to the question of what determines the L2 learner's linguistic system and his performance.

First of all, the observation that the vast majority of L2 adult learners fail to achieve native-like competence led Selinker to hypothesize the existence of a separate linguistic system, which he called 'interlanguage' (IL). The IL construct, in terms of L2 acquisition, emphasizes the significance and structural autonomy of the various developmental stages (each stage representing 'an interlanguage'). Successful L2 learning, in Selinker's own words, involves 'the reorganization of linguistic material from an IL to identify with a particular TL.'

To account for the learner's IL behaviour, Selinker (1972) suggested five psycholinguistic processes thought to be central to L2 learning: (i) language transfer, (ii) transfer of training, (iii) strategy of L2 learning, (iv) strategy of L2 communication, and (v) overgeneralization.

The fact that most L2 learners never achieve native-like command of L2 was accounted for by the notion of 'fossilization', i.e. stop learning or development at a point when a learner's linguistic system still contains many rules different from the rules of TL. Accordingly, the evidence of IL is to be found in the fossilized forms of the learner, and in the 'backsliding' phenomena (i.e. the reappearance of fossilized structures in the learner's performance, which seem to have been eradicated).

According to Selinker, the five processes are not only central to L2 learning, but also (separately or in combination) 'force fossilizable material upon the surface of IL utterances, controlling to a very large extent the surface structures of these utterances.'

It should be noted that Selinker (1972) was among the first systematic attempts to take a closer psycholinguistic look at the L2 learning process, providing a typology of the processes central to the L2 learning and tying these processes to the learner's IL performance. Thus it provided a useful framework for subsequent SLA studies. Over the years, the notion of interlanguage has undergone a number of re-definitions to suit individual interests (e.g. as a single developmental stage, as a series of interlocking stages -- Nemser's sense, as a variety distinct from L1 and L2, and as a variety combining L1 and L2), but the basic framework and ideas Corder-Nemser-Selinker propounded are still very much alive.

To summarize, we may observe that Corder (1967), Nemser (1971), and Selinker (1972) proposed that the second language (L2) learner possesses an internal linguistic system, through which his speech is produced. Nemser captured the transient and dynamic nature of the structurally organised system by proposing the notion of 'approximative systems' forming an evolving series, each getting closer to the target. Selinker emphasized the significance and structural autonomy of the learner's system (i.e. 'interlanguage') at each of the developmental stages, and characterized the learner's interlanguage as the product of five psycholinguistic processes. The three scholars appeared to emphasize the rule-governed nature, or 'systematicity', of the learner's interlanguage, while paying little attention to the variable nature of the learner's L2 performance. [Attention to the latter led Corder (1977) to view the series of interlanguages or approximative systems as a non-sequential, goal-oriented, developmental continuum of L2 competence.]

2.3. Review of Some Transfer Studies

Language transfer, as has been noted in 2.1, has re-emerged with a new appearance and a new outlook. The following sections review a number of theoretical issues related to transfer. Some of the issues will be taken up in the discussion chapter when we interpret the results of the transfer analysis and some other analyses of the present study.

2.3.1. Lado (1957)

A review of language transfer studies typically begins with Lado's (1957) classic, yet controversial, hypothesis about foreign language (FL) learning, commonly known as the Contrastive Analysis Hypothesis (CAH). Briefly, the hypothesis states that when people come to learn a new language and experience a new culture, they

> tend to transfer the forms and meanings, and the distribution of forms and meanings of their native language and culture to the foreign language and culture -- both productively when attempting to speak the language and to act in the culture, and understand the language and the culture as practised by natives. (Lado 1957:2)

Lado believed that the tendency of the FL learner to incorporate L1 features in his FL utterances would lead to errors of a certain kind. These errors, which were assumed to be indicative of difficulty, should be easily ascribable to their source by means of comparing the FL utterances and their L1 equivalents. He then related the major source of difficulty or ease in learning a foreign language to difference and similarity between the target language and the learner's L1:

> Those structures that are similar will be easy to learn because they will be transferred and may function satisfactorily in a foreign language. Those structures that are different will be difficult ---.

The point to note here is that language transfer was assumed to appear automatically whenever FL learning takes place, and that similarity between TL sand L1 would lead to satisfactory functioning in the TL. We will return to this point later.

2.3.2. Stockwell, Bowen & Martin (1965)

Stockwell, Bowen and Martin (1965) further developed Lado's notion of 'difficulty' and produced a sophisticated hierarchy of difficulty based on a contrastive analysis of English and Spanish. The hierarchy takes into account the different types of transfer (positive, negative, and 'zero' transfer) and the obligatory or optional nature of the rules/structures in English and in Spanish. Let us illustrate this with some Cantonese-English examples. In Cantonese, the subject NP of a finite complement clause is optional, whereas in English it is obligatory. Cantonese does not have the tense system (i.e. 'zero') whereas English does. In both Cantonese and English, the object NP of a transitive verb is obligatory (in a first-mention utterance). So, the comparison looks like the following:

	Cantonese (L1)	English (L2)
Tense	Ø (zero)	Obligatory
Subject NP of finite Complement Clause	Optional	Ob
Object NP of Vt	Ob	Ob

According to Stockwell et al., when L1 does not have a rule, but L2 has, this is a condition for 'zero transfer', which is negative in nature (the tense case); when both L1 and L2 have the same rule, this is a condition for positive transfer (the case of Object NP); when L1 has an optional rule and L2 has an obligatory one, this is a condition for variable (zero/positive) transfer (the case of Subj NP). And when L1 has an obligatory rule but none in L2 (i.e. Ob - Ø), this is a condition for negative transfer. Here the conditions of different types of transfer are stated in terms of the relations holding between L1 and L2 rules.

Stockwell et al. went further to establish the order of difficulty of learning by referring to the transfer conditions. The Ø - Ob was considered the most difficult, the Ob - Ob the easiest, with Op - Ob or Ob - Op lying somewhere in-between.

Here Stockwell et al. have presented us with an explicit, testable hypothesis about the relationship between difficulty of learning and language (rule) difference.

2.3.3. The 'Creativists'

Despite the main thrust by Lado, Stockwell et al., and others, it soon became clear to SLA researchers that the contrastive analysis hypothesis could not deliver all the goods it had promised. Lado's (1957) original claim that language transfer is 'the major source of difficulty or ease in learning the structure of a foreign language' (underlining added) predictable from contrastive analysis has not been supported. For example, Richards (1971) found that some expected language transfer predicted by a contrastive analysis of English-French did not occur at all, and that many errors were not due to structural contrasts. Dulay and Burt and Krashen (1982) put the figure of errors attributable to language transfer at between 8-23%. Felix (1980:107) observed that 'in a certain type of learning situation and with respect to certain structural areas children do not productively transfer from their native language.' Language transfer, and interference in particular, is not a 'natural and inevitable phenomenon' in L2 acquistion as Lado thought it was. Negative data of this kind, coupled with the paradigm shift from structural behaviorism to cognitivism (cf.2.1) led many researchers to turn away from CA-transfer activities. The focus then shifted onto the developmental aspects and similarities in SLA. It must be emphasized that in most cases, language transfer was dismissed as the major issue/factor in L2 learning and acquisition primarily on the grounds that errors attributable to interlingual transfer seldom comprised the simple majority of all errors committed, mostly with reference to morpheme studies.

The criticisms together with the general paradigmatic shift also led to a reappraisal of the role of transfer in SLA. More fundamentally, the nature and conditions of transfer were re-examined. Efforts were also made to accommodate the new, cognitive paradigm as far as

possible. In what follows, we will review a few representative studies of transfer which reflect the various responses and developments.

2.3.4. Schachter (1974)

One first response in the 70's which aroused and brought back considerable interest in the way L1 may influence L2 acquisition, and which has since become a classic was Schachter (1974). She demonstrated that interlingual difference or interference need not result in overt errors.

Drawing on work by Keenan and Comrie (1972) on the noun phrase accessibility hierarchy, Schachter compared the English restrictive relative clause formation (RCF) strategies of four language groups, namely, Persian, Arabic, Chinese and Japanese, using 50 compositions from each group. There was also an American native speaker control group. She obtained two interesting findings: (i) Chinese and Japanese learners produced fewer relative clauses than Persians and Arabs; (ii) Chinese and Japanese had a lower error rate than Persian and Arab learners.

Noting the positional constraints of the relative clause (RC) in the five languages (Chinese and Japanese RC's occur to the left of the NP-head, while English, Persian and Arab RC's occur to the right of NP-head), Schachter hypothesized that the pre- and the post-nominal positional difference would mean more difficulty for the Chinese and Japanese learners when coming to produce RC's in English.

More difficulty there was, but it did not lead to more errors as normally expected. Instead, it led to an 'under-representation' (Levenston 1971) of the structure, 'avoidance' as she called this phenomenon, which was supported by the comparatively low production figures. Schachter pointed out that such avoidance cannot be accounted for by error analysis (EA) alone, and it can be properly understood only by an a priori CA prediction in conjunction with EA. Her hypo-

thesis that major interlingual syntactic difference will result in under-representation or avoidance is supported by Kleinmann (1977) and Dagut & Laufer (1983).

2.3.5. Gass (1980; 1983)

To continue with the relative clause research Paradigm, Gass (1980, 1983) set out to explore the relationship between language transfer and universals of language (specifically 'universal grammatical relations'), and at the same time to test the validity of Schachter's (1974) claim that avoidance of a given structure indicates area(s) of difficulty, predictable on the basis of a CA between languages concerned.

Like Schachter, Gass made use of Keenan and Comrie's (1977) modified universal Accessibility Hierarchy (AH), which suggests that there is a hierarchy of relative clause (RC) types a language can relativize; they are Subject > Direct Object > Indirect Object > Object of Preposition > Genitive > Object of Comparative. It says that if a language can form a RC of a given function, then it can also form all RC's to the left of that RC. It further says that the easiest position to relativize is the Subject, and the most difficult is Object of Comparative.

Gass had altogether 17 high-intermediate and advanced adult L2 learners (but representing 9 language backgrounds) perform 3 relative clause tasks: a grammaticality judgment (GJ) test, a sentence combining task (SC), and a free composition task.

The first task involved subjects' giving acceptability judgments to 29 English sentences each containing a restrictive RC (13 well-formed, 16 ill-formed). The ill-formed sentences had 4 types of built-in error: (i) RC marker omission, (ii) pronoun retention, (iii) RC marker selection, (iv) adjacency (see Gass 1983:72). However, not

all the error types were analysed either because they were too few in number or because some languages under study could not be adequately partitioned along the error parameters. Also subjects were grouped on the basis of whether their L1's have/do not have pronoun retention.

Results from the GJ test indicated that speakers with pronoun retention in Subject, Direct Object and Indirect Object position showed significant transfer effect by being more likely to accept ungrammatical RC constructions in English which followed their native patterns of retaining pronominal reflexes. But for pronoun retention in the other three positions, no significant differences were found. In other words, transfer effect lower on the hierarchy was absent (Gass 1980).

In the second task, subjects were asked to combine, in specified ways, 12 pairs of English sentences to form 12 RC's, which should reflect the universal accessibility hierarchy. The results of the SC task were similar, but not identical, to the GJ test. In SC task, there were significant differences in the Direct Object, Indirect Object and Object of Preposition position, but not the lower ones.

To summarize at this point, it appeared that language transfer was not uniform across all positions of pronoun retention. Its occurrence seemed to be determined partly by language universals (i.e. universal AH).

To better understand the role of the AH as a language universal, Gass (1983) hypothesized that 'correct responses of L2 learners would decrease as one descends the hierarchy'. The results of the second, sentence-combining task confirmed the prediction: the easiest positon to relativize is the subject and the most difficult is the Object of

Comparative. There was one exception: the Genitive had cumulative scores higher than Direct Object or Indirect Object. Gass (1980:140) suggested it might be due to the unique quality of case-marking of whose (a 'structural language-specific' feature) and its invariant form. These two formal features would make whose perceptually salient in relative construction. Here, an intralingual feature can interact with and modify the 'universal course'.

To investigate the validity of Schachter's claim that difficulty in RC formation manifests itself in the number of RC's produced, Gass (1980:138) considered the results from the free composition task. She correlated the frequency of use of RC's in composition and the accuracy scores of SC task by the same subject. The overall correlation was not significant ($r = .39$).

To study further the 'avoidance' phenomenon, Gass looked at results of the sentence-combining task which specifically asked subjects to form RC's in certain manners. It was found that subjects tended to 'avoid' relativising on positions lower on the AH. The 'avoidance' took the form of changing the lexical item, switching order of the formative sentences, changing the syntactic structure of the second sentence, etc. Gass maintained that data of this kind showing modification provided more direct evidence/useful information about avoidance than data on lack of use in Schachter's study. As it stands, the results strongly suggested that the subjects were avoiding difficult RC constructions, but that the areas of difficulty were largely predictable 'on the basis of the universal properties of relative clauses rather than on the basis of language-specific properties as is suggested by a model of avoidance based on one's language background.' (1980:139-40)

Concluding on the relative role of language transfer and that of the universal AH in relative clause formation by L2 learners, Gass's (1980, 1983) analyses would strongly suggest that language universals appeared to play a dominant role in providing the general shape of language development, as far as relative clauses are concerned, and

language transfer played only a limited role in influencing the course of development at certain places.

One thing was certain: language universals did interact with language-specific features (L1 or L2) in the course of SLA.

2.3.6. Schachter & Rutherford (1979)

Another new perspective or development in connection with the reappraisal of the role of transfer in SLA comes from Schachter and Rutherford (1979), who studied the relationship between language transfer and typological organisation of discourse. In reading compositions written by Chinese and Japanese students attending American colleges, Schachter and Rutherford found an 'overproduction' of extraposition sentences (example i) by Japanese students (394 vs. 210), and of existential sentences (example ii) by Chinese students (80 vs. 75):

i. It is very unfortunate that .....

ii. There is a tire hanging from the roof served as their playground.

The authors wondered what led the learners to the more frequent use of such construction. They observed that there are no constructions in the surface structure of either language that correspond to English extrapositions and existentials. It would seem, then, that this was not due to language transfer. However, following the lead of Li and Thompson's (1976) new typology of language (a 4-way classification of topic prominence, subject prominence, both types of prominence, and neither of the two types), Schachter and Rutherford detected that transfer there was, but not of syntax. What was transferred was discourse organisation reflecting the basic topic-comment structure, to which the two types of structures happened to correspond. The point Schachter and Rutherford emphasized was that it would be difficult to recognize transfer of this kind if the analysis stayed with the traditional linguistic domains (phonology, morphology, syntax and lexis).

Concerning their claim in this study that the Chinese learners

'overproduced' the existential construction, the figures they presented did not seem to be statistically convincing (80 vs. 75). However, this observation does not invalidate their call for looking beyond 'syntax qua syntax' for a better understanding of the transfer phenomenon. A more convincing case was presented in Rutherford (1983).

2.3.7. Rutherford (1983)

Rutherford (1983) set out to study extraposed 'heavy subject' within the framework of Li and Thompson (1976). A 'heavy' clausal subject is one that has an internal complete SVO structure (e.g. '*A man choose his wife is a man's business'). He compared the written English of 5 language groups known to be typologically different: Arabic and Spanish ('subject-prominent'), Korean and Japanese (both 'subject-and-topic-prominent'), and Chinese ('topic-prominent'). He instructed these student groups at the American Language Institute, University of Southern California to write opening sentences on six specified topics, as if for the beginning of compositions.

The motivation behind this study came from Rutherford's observation that the production of the 'heavy' clausal subject with internal SVO generally occurs very late in the acquisition of English (either as L1 or L2) because of the difficulty in cognitive processing of such construction, and that Mandarin learners of English produce this type of structure in abundance at all levels of proficiency. This might suggest, Rutherford reasoned, that the influence of 'topic-comment typology is strong enough to override more general acquisitional strategies that limit the early production of such constructions.' (p.361)

The results confirmed some of Rutherford's expectations. First, the Mandarin speakers produced the highest ratio of topic-comment (TC) structures ($\chi^2 = 23.2$; df = 3; $p < .001$):

Table 2.1 Production of topic-comment structures

Language	No. of T-C	Total No. of constructions	%
Mandarin	18	174	10
Spanish	2	120	2
Korean/Japanese	8	234	3
Arabic	9	396	2

(Reproduced from Rutherford 1983:361)

Second, Mandarin speakers produced more serial verb constructions with existentials, which fulfilled topic-comment expectations (e.g. '*There are many problems cannot solve' -- interpretable as "There are many problems, (we) cannot solve (them easily)"). Third, the proportion of unextraposed clausal subjects produced by Mandarin speakers was statistically not significant. However, it was pointed out that the Mandarin speakers alone produced full SVO clausal subjects (3 of the 10 TC structures). Taking the three pieces of evidence together, Rutherford argued for a case of language transfer of typological features from Mandarin Chinese to the learners' interlanguage.

2.3.8. Kellerman (1978; 1983)

Another perspective or line of development is to re-examine interlingual transfer in the context of 'markedness' theory. The term 'markedness' has multiple meaning. In one sense, it is related to Chomsky's 'universal grammar' which distinguishes two types of linguistic rules: the 'core' rules (which are universal to all languages), and the 'periphery' rules (which are specific to particular languages). The core rules are grammatically and distributionally less restricted and therefore 'unmarked'; the peripheral rules are grammatically and distributionally more restricted and therefore 'marked'.

The notion 'markedness' is also used in a psycholinquistic sense, similar to the notion 'cognitive complexity'. A structure which requires less cognitive effort to process is considered less complex and

therefore 'less marked' than one which requires a lot of cognitive effort to process. So ease/difficulty of processing is related to the markedness notion.

'Markedness' has another sense when used in connection with typological studies. For example, the positions on the upper end of a hierarchy are considered less marked than the positions at the bottom end, which are considered relatively marked. Or when the typological characteristics of an L2 are similar or close to those of L1, the L2 is said to be typologically less marked from the L1 point of view.

Kellerman (1978, 1983) claimed that interlingual transfer is determined by at least two factors: the learner's perception of L1 - L2 distance, and the degree of 'markedness' of an L1 structure. He argued that when there is general typological closeness between L1 and L2, the learner would naturally capitalize on this and identify cognate forms and structures for immediate use. This will result in both facilitation and interference. However, if the two languages are typologically different, the lack of correspondence would, initially at least, deter transfer. He referred to the learner's perception as 'psychotypology', and hypothesized that 'the greater the distance, perceptually, between NL and TL, the lower the incidence of interference' (1978:39). He added, however, that there is another factor which interacts with the psychotypological factor, namely, the 'transferability' of L1 structure, which is derived from the learner's own perception of the degree of markedness of the structure in his L1.

Kellerman (1983) distinguished 'language-neutral' and 'language-specific' structures in L1. For example, if a feature or structure in one's own language is considered irregular, infrequent, semantically opaque, or idiomatic, then it is perceived to be psycholinguistically marked and less transferable than the more frequent, regular or semantically more transparent form. Here transferability is inversely proportional to the degree of markedness.

Kellerman pointed out that transferability is not a predictor of transfer performance, but one of the determinants of whether some structure should be treated as language-neutral/specific. Furthermore, language learning is a developmental process; the learner's perception of 'language distance' and L1 specificity is subject to constant change with his growing linguistic experience, and this naturally affects 'transferability'.

It is important to stress that in Kellerman's framework, 'what is transferable' and the condition for transfer to take place are determined by L1, not L2. The decision vote lies, as it were, with L1.

2.3.9. Zobl (1980a; 1984)

Zobl (1984) examined the role of L1 in interlanguage within a theory of language universal. His model is represented below:

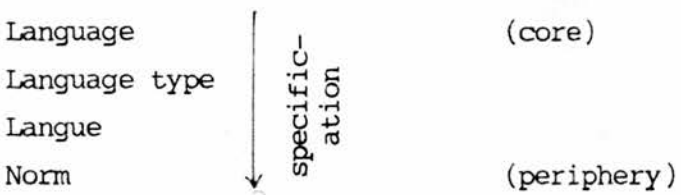


Figure 2.1 The Scale of Specification

Basic to Zobl's model are the notion of 'core-periphery' and the notion of an 'acquisition device' which is equipped with a 'projection procedure'.

The 'core' structures are grammatically and typologically unmarked or less marked; the peripheral structures are (more) marked. The notion of 'periphery' was defined in terms of typological specialization, typological inconsistency, and typological indeterminacy (the last 2 terms suggest certain rules/parameters are obscure, unsystematic, and idiosyncratic).

The acquisition device (AD) is a biologically endowed mechanism which guides a learner in the course of language acquisition. Equipped with a projection procedure/strategy, it operates upon exposure to data. An important assumption of this device is that (Zobl 1984: 82-3)

> Upon exposure to a typologically central datum, the projection procedure generates a narrow range of options regarding what attributes will co-occur with it..., as the periphery is approached, projections become indeterminate and the device ceases to operate... other learning strategies may take over at this point. (underlining added)

Zobl claimed that the device is also available for non-native acquisition. In L2 acquisition, when the learner's projection mechanism is unable, or finds it difficult, to operate on or set a particular peripheral parameter of grammar, L1 transfer, among others, will take over at this point.

It was argued in Zobl (1984) that unstable subsystems in the L2 are more susceptible to external (i.e. L1) influence. In terms of core-periphery distinction, it is the peripheral areas in L2 which are subject to L1 influence, areas showing ambiguity, irregularity, inconsistency and idiosyncracy. Whereas in the 1980 paper, Zobl simply argued that whether or not an L1 structure will be transferred depends on the structural properties/feature of the L2 (and the developmental timetable, which is not immediately relevant here), Zobl (1984) specified further the exact nature of the constraint on L1 transfer. What Zobl has been arguing is that L1 transfer is very much guided by the structural properties/features of the L2. Here, Zobl's position is in stark contrast to Kellerman's (1983). In Zobl (1984), the condition for transfer lies with the 'marked' structures of the L2; in Kellerman (1983), the condition for transfer lies with the 'unmarked' structures of the L1. In the former, the 'core', unmarked structures shut the door to L1 transfer, in the latter, they open the door for L1 transfer.

For Zobl (1984), L1 plays only a rather restricted and auxiliary role as long as the acquisition device remains available for SLA.

2.3.10. Concluding Remarks

What can be concluded from 2.3 is that the notion of (language) 'transfer' has been, over the years, broadened considerably to take account of a number of developments in SLA studies not envisaged by the early CA-transfer studies — avoidance, overproduction, typological transfer, L1/L2 structural constraints, universal constraints, etc. The notion has become richer yet more defined. It is clear now that language transfer is not a simple, straight-forward process automatically applied in L2 situations. Rather it is a very complex process, as we have attempted to show. And more often than not, transfer does not function in isolation, but rather interacts with other learning/acquisitional processes.

To conclude, it must be pointed out that while the representative studies reviewed have, not doubt, shed some interesting light on the transfer phenomenon, something noticeable and important was missing: the developmental dimension. The two of the cited studies which might be said to have implied the developmental dimension are Lado (1957) and Zobl (1984). Many of the claims might have been more interesting and illuminating, had the developmental dimension been incorporated in these studies. This point will be returned to in 2.6, and also taken up again in the discussion chapter.

2.4. Review of L2 Studies on English Tense and Aspect

The studies reviewed in this section may be conveniently divided into two parts: 'non-developmental' studies, and developmental studies, the former being synchronic and the latter having a diachronic perspective.

These studies provide a range of analytical techniques/procedures, some of which were built into the present study. The studies also highlight a number of tense-aspect problems and confusion areas confronting second language learners. Some of these problems and confusion areas are taken up in Part III of Chapter Six.

Non-developmental IL Studies

2.4.1. Cheng (1973) with Chinese Learners

Cheng (1973) conducted an error analysis based on 200 composition scripts of three secondary school and one college of education in Hong Kong, yielding the following figures with reference to the English verb:

Table 2.2 Categories & Frequency of Verb Errors

Categories	Frequency
1. Mistakes in the use of tenses	6186
2. Mistakes in verb patterns	2793
3. Mistakes in verb form	2400
4. Mistakes in concord	1354
5. Mistakes in the use of the conditional	1103
6. Confusion of transitive and intransitive	1051
7. Confusion of active and passive	1046
8. Mixing up form classes	485
9. Mistakes in the use of the anomalous finites	352
10. Mistakes in framing questions	132
11. Mistakes in word order (statements)	111
12. Mistakes in negation	23

(Reproduced from Cheng 1973:1)

As can be seen from Table 2.2, over 36% (6186) of all kinds of verb errors are related to tense. The actual breakdown of the figures on tense errors was given as follows:

Table 2.3.a Breakdown of Tense Error Type

	Actual Production											
	Present				Past				Future			
	S	C	P	PC	S	C	P	PC	S	C	P	PC
Sim. Present		51	32		1,692	12	3		53			
Pres. cont.	35		3	1	12	28	2		1			
Pres. Perf.	177	6			178	7	254		2			
Pres. P. Cont.	1				1		1	2				
Sim. Past	2,312	5	169			77	241	3	80			
Past Cont.	42	35	2		57		13		1			
Past Perf.	13		133		240	4						
Simple Future	97	1	3		96					2		
Fut. Cont.												
Fut. Perf.		1										
Fut. P. Cont.												

S -- simple. P -- perfect.
C -- continuous. PC -- perfect continuous

(Reproduced from Cheng 1973:1)

To turn some of the figures into a more readable form, some of the results from Table 2.3.a are converted into percentages and arranged in decreasing order ('//' reads "instead of"):

Table 2.3.b Tense-aspect confusion: Frequency and Percentage

Error Type	Frequency	Percentage
simple present // simple past	2312	37.4
simple past // simple present	1692	27.4
past perfect // present perfect	254	4.1
past perfect // simple past	241	3.9
simple past // past perfect	240	3.9
simple past // present perfect	178	2.9
simple present // present perfect	177	2.9
present perfect // simple past	167	2.7
simple present // simple future	97	1.6
simple past // simple future	96	1.6
simple future // simple past	80	1.3
simple future // simple present	53	0.9

The most noticeable error types are the confused use between the simple present and simple past; together they account for 64.8% of all tense errors. This is followed by confusion between the perfectives and the simple past, together accounting for nearly 20% of all tense errors. Their third important confusion area involves the simple future and the simple present/past (5.4%).

It should be pointed out that the present and the past progressive do not constitute a significant area of confusion. In the absence of details about the frequency of use, no evaluation of the relatively 'superior performance' of the progressives is possible.

2.4.2. Mukattash (1978) with Jordanian Learners

Like Cheng (1973), Mukattash (1978) conducted an error analysis based on 50 essays written by Jordanian university students. The 50 essays yielded 1618 sentences (639 simple sentences and 979 complex sentences). There were 644 erroneous sentences out of 1618, representing 39.8%. A total of 1411 errors were identified in these 644 sentences, which were grouped under twelve error-types. The frequency and percentage of each of the twelve categories are reproduced below for general reference:

Table 2.4 Distribution (Frequency & %) of 12 Error Categories

Type of error	Number			Per cent
	science	arts	total	total
1. Verbals	166	243	409	29
2. Articles	127	179	306	21.7
3. Nominals	90	138	228	16.2
4. Prepositons	104	107	211	15.0
5. Relatives	22	29	51	3.6
6. Adjectivals	23	15	38	2.7
7. Pronouns	14	24	38	2.7
8. Sentence Connectors	17	20	37	2.6
9. Quantifiers	12	17	29	2.1
10. Adverbs	16	13	29	2.0
11. Structure	8	10	18	1.2
12. Modals	12	5	17	1.2
Total	611	800	1411	100%

(Reproduced from Mukattash 1978:252)

The only comment that needs to be made here is that verb(al) errors ranked number one in the table, about 29%, which is expected, since the verb is almost always needed in a sentence. A further analysis of the verbals yielded the following error distribution with frequency and percentage (errors made by less than five students were grouped under the heading 'miscellaneous'):

Table: 2.5 Distribution of Verbal Errors

Type of error	Number	Per cent
1. Tense	142	34.7
2. Concord	119	29.1
3. Form	52	12.7
4. BE omission	49	12.0
5. BE redundancy	13	3.2
6. Voice	10	2.4
7. Gerunds & infinitives	10	2.4
8. Miscellaneous	14	3.4
Total	409	100%

(Reproduced from Mukattash 1978:253)

What is most striking from Table 2.5 is the fact that the first top

three error types, i.e. Tense, Concord, and Form, coincide with Cheng's (1973) top three verb errors (cf. Table 2.2), and that Tense ranked number one in both tables with similar percentage (34.7 vs. 36.3).

A further breakdown of the tense errors is reproduced below ('//' should read "instead of") in Table 2.6:

Table 2.6 Distribution of Tense Errors

Type of error	Number	Per cent
1. simple past // simple present	65	45.8
2. Simple present // simple past	24	16.9
3. Simple past // present perfect	20	14.1
4. Simple present // present perfect	9	6.3
5. Present progressive // simple present	6	4.2
6. Past perfect // present perfect	6	4.2
7. Miscellaneous	12	8.5
Total	142	100%

(Reproduced from Mukattash 1978:254)

The major tense error types are the confused use of the simple past instead of the simple present, and vice versa. Together, they account for 62.7% of all tense errors. The next confusion area is the present perfect vs. the simple past/the simple present. The third confusion area is the present perfect vs. past perfect, as well as the simple present vs. present progressive.

The point to emphasize is that the areas of tense confusion experienced by Jordanian learners in Mukattash's (1978) and Cantonese learners in Cheng's (1973) are largely similar, with some within-area variations.

2.4.3. Morrissey (1980) with German Learners

A study which may serve as a cross-linguistic comparison with Cheng's (1973) and Mukattash's (1978) is Morissey's (1980). He set out to analyse the most common errors in tense usage made by advanced

German learners of English. His error corpus was collected between 1977 and 1979 from 220 separate specimens of oral (taped monologues and group discussion) and written compositions produced by 96 university students in various stages of preparation for the first Staatsexemen in English.

The tense-aspect errors were grouped under four areas of confusion:

i) confusion of present and past (12)
ii) confusion of present and future (14)
iii) confusion of progressive and non-progressive (20)
iv) confusion of perfective and non-perfective (41)

Note that the figures in brackets indicate 'the number of different individuals producing an error in that category', and not the absolute frequency of occurrence.

Within the first area, the errors in using the simple past for the simple present and vice versa were evenly divided (6; 6). Morrissey observed that some of this kind or error were caused by the inability of some rules to help the learner choose the right tense. For example, the difference between (a) and (b) below cannot be accounted for by the general rules relating tense usage to reference time:

a) *I just remember that he has a mustache.
b) It just occurs to me that he has a mustache.

The restriction, or lack of it, has something to do with the idiosyncratic feature(s) of a verb, which must be learned separately.

In the present vs. future area, the great majority of errors (12 out of 14) involved misuse of the simple present for the future, e.g. '*I try to finish my studies after one year.'.

In the third area of confusion, there was a tendency to use the present progressive instead of simple present. Many of the errors here revealed a failure to distinguish the stative and the 'dynamic' verbs, e.g. '*My name is Joachim. I'm living in the Ruhrgebiet.'

Finally, in the fouth area, the major errors involved the use of the simple past (15) or the simple present (12) instead of the present perfect, and conversely, the use of the present perfect (8) instead of simple past. Morrissey observed that many of the errors violated the rule that past actions/states continuing up to the moment of speaking require the present perfect (cf. 3.2.2). Here are some error examples:

*I didn't have a chance to practise English since 1972.
*She worked in a kindergarten till now.
*I smoke Marlboros for a long time.
*This law exists since 1976.

For Morrissey's advanced subjects, the major difficulty lied in the aspect groups, i.e. progressive and perfective, particularly the present perfect.

Quantitatively, Morrissey's study, on the one hand, and Cheng's and Mukattash's on the other are not comparable, because the former was not a systematic study, and the data scanty. But in terms of confusion areas, the three sets of data have a number of converging points, particularly the confusion of simple present and simple past, and that of present perfect and simple past/present.

What can be concluded at this point, on the basis of the three studies, is that the English tense and aspect appear to cause enormous difficulty for learners of different language backgrounds. They merit more empirical studies on the nature of the problem(s).

2.4.4. Cohen & Robbins (1976) with Mandarin Learners

Cohen and Robbins (1976) undertook an interesting study to find out why learners committed the errors they did. Their research strategy was self-explanation in an interview.

The study involved three advanced Mandarin learners of English

(having completed the advanced ENG 33C course) at the University of California, Los Angeles (Hung, a sophomore; Eva, a junior; Ue-lin, a first year postgraduate). During the interview, they were separately asked to locate and explain the verb errors from their own written assignments, with the help of some suggested categories of explanation (A below) and possible reasons (B below):

A - knew the rule but didn't apply it
  - learned the rule but was not certain about it
  - never really learned the rule

B - negative transfer from L1
  - the rule was inherently confusing in English
  - grammar book/teaching caused confusion

The distribution of verb form errors as reported among the 3 learners, with reference to tense and aspect, is summarized below:

Table 2.7 Distribution of Verb Form Errors

Verb form errors	Hung	Ue-lin	Eva
-ed deletion and addition	x		x
tense switching (or continuity)	x	x	x
incorrect use of ing form	x		
avoidance of present perfect		x	
copula deletion		x	

It appeared that -ed deletion, and tense switching caused great difficulty for the three advanced learners of English. But it should be pointed out that some of the -ed forms were related to the get + Ved type (e.g. '*He got discourage'), some related to the perfective use (e.g. '*We have always live in a heterosexual society'), and some others related to the past tense use. It appeared that Hung did not really learn the rule, while Eva learned the rule but was not certain and produced sentenses like '*I used to always calculated the amount of change' and '*Campbell did not mentioned anything about the murders'.

Explanations of tense switching offered a number of interesting insights into the learners' interlanguage. On the sentence '*Whenever he tells a joke, he used a big vocabulary', Hung commented:

> I thought after whenever it's in the present tense ....
> I would say that English confused me on that part. (p.53)

In explaining the erroneous sentence 'many scholars of the past find themselves ...' in a composition generally written in the present tense, Hung suggested that he had overgeneralized the rule about tense usage that had been taught by a friend: if you want to use the verb in the present tense, you just use everything in the present tense. As can be seen from Hung's examples and explanations, the problem was a conceptual one, resulting from faulty 'teaching' and inappropriate formulation of the rule. This is described as 'transfer of training' in Selinker (1972).

On tense switching, Ue-lin appeared to have developed one rule for using the present tense: a statement of fact is always in the present tense. This was evident when describing a gift given to her father long ago. She wrote '... it is a frame which contained only a dried up leaf.'

Eva attributed her tense switching errors to carelessness and length of the sentence: 'most of the time it happens when you write a long sentence and then you are just careless.'

Ue-lin attributed the omission of copula to L1 influence, and the lack of use of the present perfect to deliberate avoidance because it seemed complicate for her: 'Since I heard your explanation, I think it's reasonable, but I won't write on like this kind cause it's sort of complicate for me.' (p.56)

Despite the limitations of self-explanation (e.g. learners may not have the matelanguage to describe the errors, their explanations may be post hoc rationalizations, etc. -- cf. Kellerman 1974), the study has provided some insights into the learners' use of tense and aspect.

The studies reviewed so far dealt with relatively advanced adult learners of English. The next study to be reviewed looked at an elementary adult learner.

2.4.5. Devlin (1983) with a Russian Learner

Devlin (1983) studied the IL production of 'verbal complexes' (a VP in TG description) by a Russian learner of English, Nadya, a professor of brain surgery in Russia, who had been in the United States for two years.

Devlin's analysis was based on 100 transcribed utterances produced by Nadya. Four descriptive terms were adopted from Klein and Dittmar (1979):

> Verbal Complex (VC) is a predicate (VP) without the modal or auxiliary;
>
> Predicate without the verbal element (PVL);
>
> Verbal Group (VG) is a predicate with modal/auxiliary.

An initial analysis of the 100 utterances established the following distribution:

Deviant VG	74
Well-formed VG	14
PVL	12

The relevant findings of Devlin's study are summarized as follows:

1. Nadya had problem with placement of the adverbial and the complement, e.g. *When I <u>better</u> speak I can go have a job
   *<u>My friends</u> here I haven't

Devlin commented that the adverbial placement error(s) might be attributed to L1 interference or to ignorance of L2 rules and that the complement placement error, which did not correspond to the TL (English) or the L1 (Russian), could be due to wrong hypothesis about the use.

2. Nadya showed little evidence of tense working (only 4 out of all utterances were inflected for tense).

Devlin weighted two possible explanations: L1 influence, since Russian is dominated by aspect, a Russian would be more used to distinguishing aspect than tense; and a developmental universal, that in the early stages of development, simple, uninflected forms tend to predominate. He was inclined to follow the second explanation.

3. The random use of the -ing form.
   e.g. '*I feeling very bad.'
   '*I writing the book.'(in a narrative)
   '*I very hard working.'

The progressive form was used in present and past contexts. Devlin went along with Johnson's (1980) suggestion that the use of ing marking seems to indicate that elementary learners feel the need for a system of marking. -ing is probably chosen as the marker because it is readily perceived by learners, as it is syllabic.

4. The omission of copula, other auxiliaries and the infinitive to,
   e.g. '*I go sleep very late.'
   '*This class special from learn understand and speak English.'
   '*Mine institute very big hospital.'

The first means 'I go to sleep very late', the second represents 'This class is specially for learning to understand and speak English', and the third is 'My institute is a very big hospital.'.

Devlin commented that the infinitive to omission and PVL constructions, among other features, appear to characterize the early stages of second language acquisition irrespective of NL background. This is known in the SLA literature as 'basic learner variety' (Klein 1986), 'basilect' (Richards 1981), or 'basilang' (Stauble and Schumann 1983). While agreeing with his observation, we still wonder why Nadya produced what she did.

One obvious observation is that Nadya had the need to communicate with others (mostly TL speakers). The second observation is that, despite her limited knowledge of English, she managed relatively successfully to get her main ideas across. Her paucal language did not stop her from producing some complex utterances like the penultimate example. She overcame her linguistic insufficiency by employing a number of communicative strategies. This will be further examined when we come to review strategies of an L2 learner.

Developmental Studies on English Tense and Aspect

2.4.6. Scott & Tucker (1974) with Arab Learners

The second part begins with a diachronic study of error analysis conducted by Scott and Tucker (1974). 22 Arab-speaking students at the American University of Beirut were involved. Their previous experience with English ranged from three to twelve years. Error data were collected from the written and oral production samples at the beginning and end of the term, a time gap of twelve weeks. To elicit written production, these students were shown three pictures and asked to write three to four sentences telling what had happened in the first picture, what was happening in the second, and what would happen in the third. For the oral production, the subjects were given picture story booklet, allowed to look at it for a few minutes, and then asked to tell the story into a tape recorder. All tests were administered in a group in the lanuage laboratory.

As in Mukattash's (1978) analysis of errors, Scott and Tucker first grouped the errors into 14 general categories and then various subcategories. Only the tense error section is reviewed here. Table 2.8 shows the percentage of errors per total usage of tense and tense carriers.

Table 2.8 Percentage of Errors per total usage of Tense & Tense Carriers

	WPI	WPII	OPI	OPII
Third person singular verb unmarked	9.4	3.2	28.6	8.5
Auxiliary or copula omitted	8.4	5.4	14.9	12.8
Wrong tense[a]	2.8	1.5	2.6	8.0
Verb incorrectly formed[a]	3.2	3.2	2.1	0.4
Total errors	23.8	13.3	48.2	29.7

[a]Per approximate total usage

The table shows all the verb errors related to tense or tense carriers. Before examining the figures, two analytical points must be noted. Firstly, because the subjects switched tenses 'in a rather confused way from present to past or future' in their picture description and story-telling, Scott and Tucker abandoned tallying the errors on sequence of tenses between sentences. Instead they counted tense errors only within T-units. They admitted to having 'missed many tense errors across sentences' (p.80). Secondly, since the wrong tense subcategory was separated from misformed finite verb, from omitted/redundant auxiliary or copula, and from -s omission, the size of the former was therefore much reduced.

Returning to Table 2.8, we can see that there was a general improvement over time on all categories and modes except the wrong tense category in oral production, where Time II witnessed an error increase. The authors observed that 25% of the tense errors mainly involved the use of different tenses in a coordinate predicate; the remaining 75% were due to the incorrect sequence of tenses in sentences with subordinate clauses, e.g. '*They arrived at a port where fishermen <u>are</u> sitting repairing their nets.'. The general picture is that sequence of tense or tense continuity caused difficulty for this group of learners. It may be recalled that Cohen and Robbins's (1976) advanced Chinese learners of English also found tense continuity the biggest problem. (cf.2.4.4.)

Turning to verbs incorrectly formed, Scott and Tucker noted the most common errors here were mis-formation of past tenses (e.g. drived, catched, is mading [for made]), and the use of the infinitive for the ing form, Be + V, as in '*The priest is put a ring on the bride finger.' The students appeared to have learned the progressive, but did not do it correctly all the time.

In the auxiliary and copula category, the greatest problem was omission. Copula omission mainly occurred in N cop PP and N cop N construction. Interestingly, there were no omissions in N cop Adj constructions.

2.4.7. Frith (1978): Development of the Progressive

Frith (1978) conducted a cross-linguistic study of the acquisition of the English progressive by four subjects at two stages of their interlanguage. The subjects were Harvey (Korea 15), Kiki (Indonesian 15), Mohammed (Persian 16), and Lila (Gujarati-Hindi 14); all had stayed in Canada for three years. Spontaneous oral production data were collected from each subject individually during their 'withdraw English class' periods. The oral tasks included picture description, story-telling, and free conversation. Unfortunately the period covered between the two points in time was not indicated, and this creates difficulty for the reader in evaluating the study properly.

The proper use of a progressive involves the two obligatory morphemes AUX + ING. Frith pointed out the progressive was present as a verb form in the 4 subjects, but they often failed to use it correctly. The control of progressive formation fluctuated greatly at time one. Frith's results are summarized in the following table for easy understanding.

Table 2.9 Development and Use of the Progressive at 2 Points in Time

		V	Be+V	V+ING	Be+V+ING
	Harvey	2	13	2	5
	Kiki	4	2	2	6
	Lila	3	4	3	4
	Mohammed	1	3	1	2
Time	1	(10)	(22)	(8)	(17)
					29.8%
	Harvey	2	8	19	13
	Kiki	3	2	7	3
	Lila	3	4	9	33
	Mohammed	-	-	-	20
Time	2	(8)	(14)	(36)	(69)
					54.8%

The main finding were as follows:

a) At time 1, all subjects used the same four variable rules for forming the progressive aspect. At time 2, three subjects were still using the four rules, but with some qualitative differences. (In time 1, there was more use of Be+V, but in time 2, more use of V+ING. Also the use of the target rule improved from 29.8% to 54.8%.)

b) Kiki was the only subject who showed signs of regression. In contrast, Mohammed was the only subject who achieved full mastery of the Progressive.

c) Compared with Harvey and Kiki, Lila's use of the progressive had become relatively stable. Her non-target focus shifted from Be+V to V+ING.

To summarize at this point, Frith's data show important changes in the 4 subjects over time, as indicated by the improved mastery of the target structure, the loss or reordering of the variable rules, and regression (or 'backsliding' in Selinker's term).

The emerging system of the progressive appeared to follow this route:

(V --→) Be + V --→ V + ING --→ Be + V + ING

Turning to the acquisition of functional use of the progressive, Frith noted that the subjects used the 'variants of the progressive' to express as many as ten different functions, which included 'on-going activity', 'present state', 'past time', 'order' (e.g. Open-ing the door!), 'immediate future', 'result', etc.; ---- but only two of the functions were correct uses. (See 2.7.4.)

The L2 learners here were cognitively capable of expressing the same range of functions as native speakers would, but, unfortunately, they lacked the linguistic means to do so (or rather they had not yet fully mastered the linguistic means for expressing their intentions); they were cognitively advanced, but linguistically inadequate. The result was: they had to use 'developing forms' to meet the communi-cative demands.

2.4.8. Godfrey (1980) with Japanese Learners

Drawing on Chafe's (1972) framework of temporal constraints on tense use in discourse, Godfrey (1980) set out to study the problem of tense continuity in L2 discourse production and the avoidance phenomenon. 20 subjects from the English Language Institute, Michigan University were recruited. There were 4 students at each of five levels of proficiency (established by an entrance placement test). At each level, 2 subjects were Japanese learners and 2 Spanish speaking learners. 4 native speakers of English studying Japanese were also recruited as a reference group.

Subjects were asked to view a 12-minute mostly non-dialogue film in groups of two or three, and then to go separately to a room with a recorder. They were to tape three segments: (a) the story

of the film in English, (b) an evaluation of the film in English for its usefulness in EL1 classes, and (c) the story of the film in L1 (for the native speakers, the story in Japanese). The author reported only the first 2 tasks. Below is a summary of the results (error rates) based on all subjects:

Table 2.10 Tense errors per verb in Task 1 and Task 2

	Level 1	L2	L3	L4	L5	Natives
Task 1:	.22	.24	.21	.21	.06	.04
Task 2:	.00	.10	.08	.09	.03	.03

The error rate results indicate several things:

a) Contrary to normal expectation, tense errors in the study did not show a gradual decrease with increase in proficiency. In the story-telling task (1), the error means in the first four levels remained high when compared with level 5. In the second, evaluation task, level 1 made no errors at all, and levels 2, 3 and 4 had similar error means. Only at level 5 was there a dramatic drop in error rate for both tasks. This did not reflect the general development pattern.

b) The evaluation task appeared to have fewer errors than the narrative (i.e. story-telling) task.

To understand the erratic tense error rates, Godfrey examined the tenses the subjects used in the first task. It appeared that level 1 subjects tended to use the present tense, which meant that they could avoid marking verbs for the past. However, the lack of marking for person and number established that the level 1 subjects did not use marking of any kind.

At level 2 the pattern of 'avoidance' and 'disuse' appeared in one subject. The other three attempted to maintained past tense continuity but often failed.

The establishment and maintenance of a certain tense was variably applied at level 3. Shifting tenses was quite common.

At level 4, tense maintenance was clearer. One subject established and maintained a present tense continuity with lapses into the past. And another subject attempted to maintain the past tense with some success only. The other two subjects were able to control and maintain the past tense with few errors.

At level 5, 3 subjects maintained past tense continuity, while the fourth subject was proficient enough to maintain the present tense continuity.

As for the native speaker group, 3 presented the narration in the present tense, while the fourth used the past tense.

To summarize, the lower levels seemed to benefit from disuse of the past tense. (Any use of the past continuity would lead to high error rate.) The mid-level subjects fluctuated between tenses, and this often led to errors. The real break came at level 4, where more subjects used the past tense, and the relative mastery of tense control came at level 5.

2.4.9. Simukoko (1981) with Zambian Learners

Simukoko (1981) investigated the systematicity and variability of interlanguage development of three areas of English in Bantu learners: (i) spatial and temporal prepositions, (ii) tense and aspect, and (iii) relativization and complementation. The subjects were primary school pupils at Grades 4, 5 and 6. Data of the first two areas were collected through a multiple-choice task, and the third area through an elicited imitation task. For the present purposes, only the area on tense and aspect is reviewed here.

Seven subcategories of tense-aspect were examined: Simple Present, Present Progressive, Present Perfect, Simple Past, Past Progressive, Past Perfect, and Simple Future in the study. Initial analysis of percentage scores indicated that there was a highly significant grade effect, suggesting that the development of tense-aspect was a function of time.

Interesting results were derived from various error analyses of test items. First, the order of item difficulty from the test did not significantly correlate with the official syllabus gradings. Second, an analysis of the built-in error types (uninflected form, non-target-like tense, progressive aspect, perfective, change of voice and ungrammatical sequence) revealed that all except perfective showed a decline in error rate with a rise in grade-level. A Chi-square (χ^2) test indicated that the pattern of error distribution was highly significant. A further analysis of each of the error types was undertaken.

As regards the uninflected forms, there was no difference in the use of unmarked forms in both the past (e.g. '*last week Mutale learn how to ....') and the non-past contexts (e.g. '*John wash his hand before he begins the meal.' and '*Tomorrow Mr. Mfula leave for Kabwe at 8.00 a.m.') Simukoko commented that this is characteristic of interlanguage behaviour —— 'under-specification'.

Concerning non-target-like use, there was no significant difference between the shift past → non-past and the shift non-past → past.

Neither was there a significant pattern of distribution of errors between the two aspectual distinctions across the three grades.

(The change of voice did not provide comparative statistics.)

Finally, there was no restriction of occurrence of ungrammatical sequences to either the past or the non-past domain. Nevertheless,

there was a sharp decline in proportion with a rise in grade-level.

To sum up at this juncture, it is reasonable to say that this sample of Zambian pupils showed a significant development in the category of tense and aspect between Grades 4 and 6. However two problem areas remained: first, the perfective errors did not show a decreasing pattern, and this suggested a lack of significant development; second, the past-nonpast confusion persisted through the three grades.

Turning to Simukoko's main, scalogram analysis, it was established that within the 'past'domain, the pupils acquired 3 tense-aspect notions in the following order:

Simple Past, Past Perfect, and then Past Progressive

The nonpast tense-aspect notions were acquired in the following order:

Future, Present Perfect, Simple Present and Present Progressive

It was further established by scalogram analysis that the items within each tense-aspect subcategory showed an implicational array (which could be taken to reflect an interlanguage continuum).

2.4.10. Klein & Dittmar (1979): the Heidelberg Studies

Klein and Dittmar (1979) reported on their Heidelberger Forschungprojekt 'Pidgin-Deutsch' (HFP) in which the 'naturalistic' syntactic development of German in Italian and Spanish migrant workers was investigated. The data used in their analysis was 'selectively sampled' (see Klein & Dittmar 1979:114-119) from transcribed utterances of 60 interviews (involving 48 migrant workers). 100 sentences from each interview were chosen, making a total of 6,000 sentences in the data corpus. Their focus was on the developing grammars of the learners established along the dimension of time (Klein and Dittmar 1979:88-89):

Time (6 month interval)	T_1	T_2	T_3	T_4	T_f	T_t
Variety (f=final; t=target)	V_1	V_2	V_3	V_4	V_f	V_t

The basic assumptions of the 'developing grammars' came from Corder (1967), Nemser (1971) and Selinker (1972).

They reported developmental findings on 5 syntactic constituents: the 'proposition', the verbal complex, the nominal complex, the adverbial complex, and subordinate clauses. Here, only the findings on the verbal complex are related (Klein & Dittmar 1979:144). The constituents of the German verbal complex appeared to be learned in the following order: 'simple verb, copula, modal verb, auxiliaries. Combinations of modal verb, auxiliary + verb or copula are acquired very late.' (p.144)

Klein (1986:90-5) provided an exposition on the acquisition of the finite element of the German verb by the migrant learners. He claimed that the development appeared to follow 3 broad stages:

At stage 1, utterances were composed of non-inflected lexical units which can be roughly assigned, with some difficulty, to two word classes. In their construction of utterances, the basic learners appeared to follow purely the pragmatic principles.

At stage 2, lexical units gradually showed inflection and could be assigned, without much difficulty, to word classes in rough correspondence to the German classification. However, there was no consistency in marking inflection: exceptions and generalizations were quite common. Learners at this stage seemed to be able to construct utterances according to 'some syntactic rules' of their own, but they still lacked the German target rules. So, they were vulnerable to L1 interference.

At stage 3, the learners appeared to have grasped the rules of finite elements and were, on the whole, able to construct utterances conforming to the German standard.

2.4.11. Meisel & Clahsen (1985): the ZISA Research

In a recent discussion of their own cross-sectional and longitudinal studies (The ZISA Research based first at the University of Wuppertal and then at the University of Hamburg), Meisel and Clahsen (1985) criticized some current practices in L2 research that focus exclusively on a description of surface features of L2 speech or on merely analyzing structural properties of learners' interlanguage (e.g. Klein and Dittmar 1979).

Instead of searching for possible 'interpretations' of the analyzed features or structural properties, L2 research should, Meisel and Clahsen argued, first 'define the functions which have to be encoded and then analyse the devices used by different types of learners at different points of the developmental continuum...' (48). They called this the 'functional approach' to L2 interlanguage description.

The authors then went on to summarize some results of their own longitudinal study (for details of design, see section 1 of their paper).

They observed that during the early stages of L2 acquisition (in a naturalistic setting), the learners did not make use of verb inflections for the expression of past (or future) reference. Instead, they used adverbials (adverbs, noun phrases, or prepositional phrases —— one/combination of them). At the very beginning, adverbials used to express temporal references tended to occur in the final position. But soon 'initialization' of adverbials occurred, i.e. placing the adverbial at the sentence initial position. (It should be noted that Meisel and Clahsen made a technical distinction between 'adverbial initialization' and 'object-NP topicalization' —— a distinction normally not found in the linguistics literature!)

To express a past event, for example, the learner might use temporal expressions or aspectual distinction of accomplished actions, as in:

'my father, right? finished work Germany, (an)other ten years, back to Italy, right? se ha lavarato 5 years, right?' (Translation theirs: p.53)

To express a 'habitual' meaning, the adverb immer ('always') was placed next before the verb.

The authors noted that reference to the future events/actions occurred relatively infrequently. And if at all, it would be mostly expressed by adverbials rather than by werden ('will/shall'), or sometimes by conjunctions (wenn-dann: 'if-then'), modal verbs (e.g. muss, wollen: 'must', 'want') and some movement verbs (e.g. kommen, gehen: 'come', 'go'). The following translation of a subject's utterances (p. 54) illustrates some of the points:

'but I, I will only come (= go to Spain) for one year/ I get my paper (for) work (= working permit)/ everything OK (nice) and then come no more to Spain/ stay here in Germany/ I have no problem (= I'm fine).'

It was also noted that the order of verbal expression of an event-sequence almost always paralleled its actual course.

2.4.12. Concluding Remarks

The studies reviewed in Section 2.4. have clearly shown that tense and aspect are major problem areas for ESL or EFL learners of different linguistic backgrounds, and therefore merit more empirical studies. The reviewed studies have provided useful information about the various approaches and methodologies to the problems: quantitative vs. qualitative; 'formal' (features and structures) vs. 'functional'; synchronic vs. diachronic; etc.

On the whole, one would agree with Meisel and Clahsen (1985) that L2 acquisitional studies to date, as far as tense and aspect are concerned, have skewed to the quantitative, the 'formal', and

the synchronic vein. It must be emphasized that there is a need for the formal or quantitative approaches to acquisition (cf.1.3). But the field will be much enriched by more input from the qualitative, 'functional' studies of the L2 acquisition process, while not ignoring the quantitative and structural aspects of L2 acquisition (cf. 2.7.). This is, in part, the goal of the present study.

2.5. Review of SLA Studies of Temporal Adverbials

There have been very few studies on the acquisition/development of adverbials in the SLA literature. A possible reason is that they belong to a syntactic class with a heterogeneous internal structure, which may be a noun (phrase), a verb phrase (in the traditional sense of the term, e.g. 'John walked limping along the road.' or 'Having talked to his wife, John felt relieved.'), a prepositional phrase, a clause (in the traditional sense), or an adverb. Many L2 researchers and teachers get confused with terms like adverb, adverbial, adverb clause, and prepositional phrase. They often mix up the form-function relationship. However, we will not go into this for the present purposes.

Another reason may be that until recently, L2 researchers have focused on grammatical morphemes/functors or on some familiar sentence processes such as negation, interrogation, passivization, etc. Very occasionally, adverbials were marginally touched on, and often through studies of preposition(-al phrase)s. Frontal attacks have been rare.

Yet another reason may be suggested: the class of adverb(ial)s has not featured prominently in error frequency studies. For example, Mukattash's (1978) error study placed 'adverbs' in the 10th position. (cf. Section 2.4.3.) The same position was obtained in Neumann's (1977) error study (cited in Hatch 1983:103).

In what follows, we review three recently published studies specifically addressed to the acquisition/development of adverbials

and one other study which dealt with adverb(ial)s marginally.

2.5.1. Clahsen (1980): Adverbial Placement

Clahsen (1980) studied the word order phenomena in the German utterances of 12 Italian, Spanish and Portugese migrant works. This was part of the Wuppertal research project ZISA coordinated by M. Meisel. In the paper he dealt with word order permutation of the verb phrase and of the 'adverbial phrase'. Only the section on adverbials is dealt with in this review, and some of the examples are reproduced here for discussion. For the full set of examples, see Clahsen (1980:54-5). The six examples were produced by six different learners.

I. (a) i jetzt gut meine meister
(= "I now good my boss")
(b) italienis viel verstehen espanis
(= "Italians much understand Spanish")

II. (c) sontag autopolizei sun da
(= "Sunday carpolice is here")
(d) un einmal die war in garderobe
(= "and once she was in wardrobe")

III. (e) die bringen jedes jahr ein wunderbares zeugnis
(= "they bring every year a wonderful report")
(f) und krieg ich jetzt auch noch ein kinde
(= "and get I now even another child")

The three sets of data above show the different positions of the adverbials (most of them time adverbials). The adverbials in (a) and (b) occur in sentence internal, pre-verb position; the adverbials in (c) and (d) occur in sentence external position and the adverbials in (e) and (f) occur in sentence-internal, between - V - Obj position.

Clahsen noted that the sentence-internal, pre-verb position is

neither common in the learners' L1 nor in the target language, German. He regarded this an 'interlanguage' position. The L1 transfer explanation does not apply as adverbials appear in some sentence external position in the learners' L1 (with normal intonation).

Arguing from the point of view of adverbial scope (which generally distinguishes VP-adverbials and S-adverbials), Clahsen assumed that the sentence-internal pre verb adverbials had the VP as scope, same as the between - V - Object adverbials.

To study the relationship between the positions, Clahsen examined the subjects' data-values within an implicational framework against two permutation rules for adverbials:

(i) Adv-Preposing (i.e. adverbial in initial position)

(ii) Adv-VP (adverbial between the inflected verb and the object)

The analysis indicated that subjects (a) + (b) did not apply either rule at all. Subjects (c) + (d) applied the Adv-Preposing rule about 35% of the time, and applied the Adv-VP rules very rarely. Subjects (e) and (f) applied both rules about 60% of the time.

On the basis of the results, Clahsen postulated a weak implicational relation between the two rules:

Adv-VP $\supset$ Adv-Preposing

It says that all learners who applied Adv-VP also had Adv-Preposing, the reverse need not be the case. An important point to note here is that Clahsen did not speak of 'acquisition' of a rule, but 'application' of the rule, and that no cut-off point was mentioned as regards 'application'.

2.5.2. Klein & Dittmar (1979): Development of Adverbial Complex

Reference was already made to Klein and Dittmar's (1979) 'Pidgin-Deutsch' study in 2.4.10. Here we concentrate on their findings on

the adverbial complex (AC), which, in their description, has the following rule:

$$AC \longrightarrow \left[\begin{array}{ll} & \left[\begin{array}{l} N(P) \\ Pro \\ Num \end{array} \right] \\ (Prep) & \\ \left[\begin{array}{l} Prep \\ Quan \end{array} \right] & Adv \\ & Quan \\ & S \end{array} \right] \qquad (1979:115)$$

Klein and Dittmar noted that the adverbial complex (AC) played an important role in the basic learner variety because it often had to replace the functions of the German morphological system when the latter had not yet been acquired. For this reason, AC occurred relatively frequently in the learner's language, and was among the first syntactic items learned or used (see Table 2.11 below). Results of the development of the internal elements are reproduced here:

Table 2.11 Probabilities of Use of AC

Groups	I	II	III	IV	HD
Rules					
AC → NP	0.42	0.25	0.20	0.09	0.02
AC → Prep NP	0.13	0.19	0.26	0.30	0.17
AC → Prep Pro	0.002	0.003	0.01	0.02	0.02
AC → Adv	0.36	0.46	0.39	0.43	0.62
AC → Quan Adv	0.003	0.01	0.02	0.01	0.03
AC → Quan	0.05	0.04	0.02	0.03	0.02
AC → S	0.02	0.04	0.08	0.10	0.11
Other structures	0.01	0.01	0.02	0.02	0.02

(Reproduced from Klein & Dittmar 1979:136)

(I, II, III and IV represent the subjects' level of proficiency; HD represents the native German group.) Several observations may be derived from the Table:

a) The three adverbial structures most favoured by the native speakers were, in decreasing order, adverbs (.62), prepositional phrases (.17), and adverbial clauses (.11).

b) The 3 most favoured AC structures for the lowest group were noun phrase (.42), adverbs (.36), and prepositional phrase (.13). The most favoured NP here was among the least favoured for native speakers.

c) NP, clause (S), and, to a great extent, Prep NP showed clear and relatively smooth development across levels/over time.

d) The higher levels were characterized by a decrease in using NPs as adverbials, and a corresponding increase in using NPs with prepositions and adverbial clause.

The summary picture with respect to the development of adverbial complex looks like this: the early adverbials were simple NPs without prepositions. This structure dropped dramatically in frequency from the second level onward, and was replaced by NPs with prepositions and clausal adverbials. The adverbs were used from the beginning (I) to Level IV, but the frequency, comparatively speaking, was far lower than the native German speakers. One final observation: NPs with prepositions were learned before clausal adverbials.

2.5.3. Bourgonje, Groot & Sharwood Smith (1984): Cross-linguistic Study of Adverbial Placement

Bourgonje, Groot and Sharwood Smith (1984) reported a cross-linguistic study of the acquisition of adverbial placement in EFL. The Primary purpose of the study was to determine the degree of mother tongue (L1) influence, if at all, on EFL learners. Adverbial placement in English was chosen as the area of study because it presented real problem for even advanced Dutch learners of English.

Data were collected through a battery of four tests (A, B, C,

and D), each containing 25 items. The subject pool contained 375 university students and 200 secondary pupils, representing five language backgrounds: Dutch, Finnish, French, German, and Polish —— chosen because they exemplify typologically different language systems, especially in terms of word order. It was thought that 'a good typological spread would ensure the appearance of L1 influence if (original underlining) that proved to be a relevant factor in the subjects' interlanguage.' (Bourgonje et al. 1984:93) Only some findings from subtests A and B were reported in their paper.

Test A required subjects to insert the adverb always into sentences with different types of VP construction, simple or complex, e.g. (a) below is a simple VP and (b) complex:

(a) He studies on Sundays.

(b) You will find the book on the bench.

Complexity of the VP was defined in terms of the number of constituents in it. It was hypothesized that the complexity of the VP would influence the correct placement of the adverb.

Bourgonje et al. first present results/response distribution patterns found for the Finnish and the Polish groups in items with simple VPs. The following table is a slightly modified reproduction (see Bourgonje et al. 1984:95).

Table 2.12 Error Distribution (%) in Simple VP: Finns and Poles

Group	Level	(N)	Position in sentences with simple VPs				
			1	2	3	4	5
Finnish	university	(8)	-	50	20	28	2
	school	(20)	13	11	33	39	2
Polish	university	(20)	1	80	5	11	
	school	(14)	6	76	6	8	

The correct position for always is 2 a pre-verb position, as in 'He always studies on Sundays.' The data clearly show that the

Polish learners favoured position 2, to the neglect of other positions. The Finns often chose post-verb positions 3 and 4, except the Finnish university students. Even here the Finnish students compared unfavourably with Polish students (50:80) in terms of frequency.

The distribution of always in sentences with complex VPs (e.g. 'You will always find the book on the desk') appeared to show similar patterns for the Finnish and the Polish groups. This time Polish learners made a lot of errors in placing always before the verb phrase.

The authors noted that in Finnish, the adverb always is often placed after the VP, and that in Polish, it is regularly inserted in front of the VP, and suggested that L1 transfer appeared to be a reasonable explanation for the distributional patterns observed. The different L1 word orders had a differential effect on the placement task.

The authors then presented distributional patterns of always in constructions with complex VP for German and Dutch learners. They are reproduced below:

Table 2.13 Error Distribution (%) in Complex VP: German and Dutch

Group	Level	(N)	Position in sentences with complex VPs					
			1	2	3	4	5	6
German	university	(15)	5	32	37	1	17	8
	school	(9)	9	43	17	11	17	2
Dutch	university	(8)	-	28	69	-	3	-
	school	(10)	-	33	40	-	22	-

(Reproduced from Bourgonje et al. 1984:97)

Bourgonje et al. noted that position 2 is not a typical position for Dutch altijd and German immer (= always). L1 influence would not seem likely. However, they also noted that this pattern was

not common across all language groups. In search for a convincing account for the errors in position 2, they came up with the 'indirect transfer' arguments. They based their arguments on two sources. First, they assumed an SOV word order in German and Dutch (evidenced in the subordinate clause) which allows adverbs in position 2 (again evidenced in the German/Dutch subordinate clause). Secondly, whereas English modals are truly auxiliary verbs, Dutch and German modals have more main verb characteristics (e.g. English modals do not have number agreement with the subject, or occur in infinitive; Dutch and German modals observe number agreement with the subject, and occur in infinitive forms). These two L1 forces might lead the less informed learners to place adverbs in position 2. Transfer of this kind, they argued, could not be spotted readily by just comparing the surface structures cross-linguistically, and was not a direct one.

Results from Test B (an acceptability judgment test) indicated that the overall pre- and post- VP placement preferences found in Test A for different language groups were also found in Test B. For example, in item like 'The little boy sits silently in the corner' (the adverb was placed in the 'Finnish position') produced the following acceptability judgment scores (%): Finnish (over 90%), Polish (about 55%) and German and Dutch (about 20%). The result clearly indicated that the great majority of the Finns accepted the adverb in this post-verb position.

There was one other interesting point Bourgonje et al. discussed, namely, beginning learners formulate and consciously/unconsciously apply L1-based interlanguage rules. This was illustrated by comparing the placement scores of Polish school pupils and those of Dutch university students on two items:

a) The journey normally takes about 3 hours.

b) They finally paid their bills.

Table 2.14 Normally and Finally:
Polish Pupils vs. Dutch university students

Group (N)	% correct 'normally'	% correct 'finally'
Polish school pupils (8)	75	75
Dutch univ. students (10)	60	60

What appeared remarkable was that Polish pupils did a better placement job than the Dutch university students. This was likely if it is assumed that the Polish pupils followed their native placement rule which happened to lead to correct placement in the English sentences.

To sum up, the results of the study indicated that the learners' IL systems, with respect to adverbials, were influenced to a significant degree by their respective L1's. But as the German and Dutch data showed, the kind of interference need not be a direct, mechanical transfer.

2.5.4. Mukattash (1978)

Recall that in Mukattash's (1978) analysis (cf.2.4.3.) of errors, one of the categories was 'Adverbs'. This category accounts for 2% of all errors committed. However, it should be pointed out that Mukattash used the term 'adverbs' to cover both adverbs (a form class) and some noun phrases (e.g. last year) functioning as adverbials. And there was no specific treatment of time 'adverbs' in his discussion.

Of relevance to the present thesis was an example he cited and discussed: 'If we look to the education now and before twenty years we can see the great difference.' Mukattash claimed that the confusion between before and ago was a clear case of L1 interference and was

common in Jordanian English. He commented that in Arabic, the word qabil is equivalent to the English words ago and before. In students' errors, one finds a one-way substitution, if at all, of before for ago, but never the other way round. This, according to Mukattash, might be due to the fact that qabil functions as a preposition in this and similar contexts. This discussion will be returned to in the results and discussion chapter.

In the error category 'prepositions' (which account for 15% of all errors committed), there is a subcategory 'time', i.e. prepositional phrases functioning as time adverbials. This 'time' subcategory accounted for 14.7% of all prepositional phrase errors. As indicated by the examples, they mainly involved incorrect use of the preposition, e.g. '*It was established on 1962.'.

Another bit of information on adverbials may be gleaned from Mukattash's treatment of the category labelled 'sentence connectors'. In the 50 essays, there were altogether 45 uses of temporal subordinators like after, as soon as, etc., introducing subclauses. There was only 1 error. One might assume that temporal clauses did not cause any problem. But according to the author, this was at variance with his experience and a cursory examination of the compositions. What he found out was that 'only half of the students used time clauses'. This point will be returned to when we discuss the results of adverbial use in Cantonese learners of English.

2.5.5. Concluding Remarks

To summarize the adverbial section, we may say that adverbial placement by L2 learners appear(ed) to be subject to strong mother-tongue influence, especially at the initial stages, and that L2 beginners (e.g. in Klein and Dittmar's study: 2.5.2., and in Meisel and Clahsen's study 2.4.11.) tend(ed) to use adverbials to replace tense markings. The question we may ask is: do Chinese learners of English also exhibit similar characteristics when coming to learn and use time adverbials? This question is explored in 6.10.

2.6. Some Psycholinguistic Processes and Strategies in SLA

(Passing) references have been made, in previous sections, to some L2 processes and strategies, e.g. language transfer, overgeneralization, simplification, etc., but their exact relationships have not been discussed. In this section, we take a closer look, mainly from the communication point of view, at these and some other processes and strategies discussed in the literature.

As will become evident, a number of the strategies and processes reviewed here will be employed to partly explain the subjects' second language performance/behaviour in this study. Furthermore, three of the strategies reviewed (transfer, message abandonment and message restructuring) have triggered off three specific analyses in the present study. Their interrelationships will be discussed in Chapter Seven.

2.6.1. Taylor (1975): Transfer and 'Overgeneralization'

One early SLA study which saw a relationship between the use of transfer and overgeneralization as strategies was Taylor (1975), who investigated the use of these two strategies in Spanish-speaking elementary and intermediate learners of ESL.

He defined 'overgeneralization' as the application of a target-language (TL) rule in an inappropriate situation when the L2 learner attempts to generate a new utterance; and 'transfer' as a reliance on native language structures when the L2 learner attempts to generate an utterance in TL. Looking at the two strategies from a learning perspective, Taylor regarded them as 'two distinctly different linguistic manifestations of one psychological process. That process is one involving reliance on prior learning to facilitate new learning.' (p.87) He claimed that the principal motivation behind the strategies which a learner brings to language acquisition is the desire to reduce his learning burden. Extending known rules (in L1 or L2) should make life easier and 'simplify' the learner's task (see 2.6.8).

Within this framework, it is easy to understand why L2 beginners rely relatively more on L1 as a learning or production strategy (because the only 'previous linguistic experience' they have is their L1 knowledge), and why intermediate or advanced learners rely relatively more on generalization (by virtue of their having learned a considerable amount of TL on which they could rely). This observation was borne out by Taylor's study: transfer errors were in inverse proportion to length of exposure to L2.

2.6.2. The Notion of 'Strategy'

In 2.3.8., Kellerman (1978, 1983) claimed that the source of transfer is the L2 learner's awareness or perception of the nature of L2 in relation to his L1, and his belief that he can use an L1 structure from which to produce a TL one. Transfer, in Kellerman's framework, would be treated as a conscious attempt to use L1 from which to produce L2. It is a production strategy, which implies a well-motivated approach to a problem with a particular goal in mind.

Faerch (1984b) suggested three criteria for the definition of 'strategy': goal-relatedness, consciousness, problematicity, with the last implicating the second and then the first. They correspond to Kellerman's use of the term 'strategy of transfer'.

2.6.3. Production vs. Communication Strategies

Tarone, Frauenfelder and Selinker (1976) distinguished 2 types of strategies: 'learning strategy' and 'production strategy'. The former refers to a process of rule formation, 'a tentative hypothesis which the learner forms about the nature of the L2, which is tested and subsequently modified.' (p.100). An example will be an L2 learner who might begin by using L1 rules as a strategy in learning L2. These transferred, IL rules are, by definition, unstable and changing. Tarone et al. maintained that 'learning strategies are a part of the general process of hypothesis-formation and hypothesis-testing during language learning.'

A 'production strategy' was defined by Tarone et al. (1976) as a 'systematic attempt by the learner to express meaning in the TL, in situation where the appropriate systematic TL rules have not been formed.' (p.100). Later, Tarone (1983:66) redefined the term 'production strategy' as 'an attempt to use one's linguistic system efficiently and clearly, with a minimum of effort', and at the same time identified one other type of strategy: 'communication strategy', which refers to an attempt by the learner to communicate a meaning with alternative means. However, for practical purposes/analysis, Tarone's distinction between 'production' and 'communication' is not universally adopted in SLA research.

2.6.4. Tarone et al. (1976): A Typology of Strategies

Tarone, Frauenfelder and Selinker (1976) identified six production strategies used by children in the Toronto French Immersion Program:

a) Transfer and overgeneralization, which were considered unconscious use of L1 and L2 respectively;
b) appeal to authority, lexical substitution, semantic avoidance and topic avoidance, which were hypothesized to be conscious efforts on the part of the learner to attempt to communicate in TL (p.126-8).

Tarone et al. pointed out that the 'conscious-unconscious' distinction points to 2 different cognitive processes. 'When the learner uses more conscious strategies, he is hypothesized to be more aware of a lack of ability in the TL.' (p.128). The use of transfer and overgeneralization does not imply the same awareness.

In Tarone, Cohen and Dumas (1976), the earlier notion 'production strategy' was replaced by 'communication strategy', and the typology of strategies was broadened and some terms redefined and operationalized. One noticeable absence was the 'consciousness' criterion. The strategies added included (i) prefabricated patterns (Hakuta 1976), (ii) overelaboration (Levenston's (1971) 'over-indulgence'), and under the general category of avoidance: (iii) paraphrase, (iv) message abandonment (in the middle of delivery), and (v) language switch (use of NL word(s) in interlanguage utterance).

2.6.5. Váradi (1982): 'Semantic Adjustment'

In fact, the two typologies of strategies described in 2.6.4. were, in a substantial way, influenced by Varadi's (1973/83) pioneering and seminal work, which had been circulated 'underground' (i.e. unpublished) until its public appearance in 1980 in IRAL and subsequently collected in Faerch and Kasper (1983a).

Váradi (1983) described a theoretical model of interlanguage production, which focuses on the communication strategies the L2 learner uses to make up for his deficiency in TL knowledge. Váradi observed that one problem constantly facing the L2 learner is to find the appropriate L2 forms and structures to express his intended meaning —— the message. But his etat de langue (IL) is, by definition, deficient. The range of available formal means to express his meaning is restricted. Sometimes, even the available formal alternatives are not readily available.

When he finds himself unable to formulate his intended meaning by any linguistic means available to him, one thing he can and may do is to reduce or adjust his meaning so as to bring it in line with his linguistic ability. Such a strategy Váradi called semantic reduction or semantic adjustment.

Or when he has some linguistic resources, but not the right kind to express the original, intended meaning, he might replace the original message with another message/meaning which can be formulated with his linguistic knowledge. Such a strategy Váradi called semantic replacement.

Or the learner finds that he does not have the most suitable words/structure for an intended message, but has some other less appropriate/precise but viable expressions. Production with the alternative linguistic means was called formal reduction, or formal replacement.

The most unproductive, negative strategy is message abandonment where the L2 learner just shuts his mouth and leaves the intended message behind. Tarone et al. (1976) called this 'topic avoidance'.

The strategies just described are now known in the literature as 'reduction strategies' ——— after Váradi's identification of semantic and formal reduction strategies (also see 5.2.1).

2.6.6. Faerch & Kasper (1983b): A Comprehensive Typology

A more recent and comprehensive typology of communication strategies comes from Faerch and Kasper(1983b). They began the typology by distinguishing two different ways in which L2 learners might respond or behave when experiencing difficulty/problem in communication (p.36-7): they may 'solve' the problem by either running away from it, or by modifying the communication goal; or they may try their best to tackle the problem with any available means. The first reflects the so-called 'avoidance' behaviour, and the strategies used are reduction strategies. The second response reflects the so-called achievement behaviour, and the strategies used are achievement strategies (also known as 'compensatory strategies').

As we saw in the last subsection (2.6.5.), reduction may be 'formal' or 'semantic'. Faerch and Kasper followed this distinction. So their framework consists of 3 sets of strategies: formal reduction strategies, functional (i.e. semantic) reduction strategies and achievement strategies. The details of their framework are reproduced below:

Table 2.15 Overview of Communication Strategies

Formal reduction strategies:	Subtypes:
Learner communicates by means of a 'reduced' system, in order to avoid producing non-fluent or incorrect utterances by realizing insufficiently automatized or hypothetical rules/items	phonological morphological syntactic lexical
Functional reduction strategies:	**Subtypes:**
Learner reduces his communicative goal in order to avoid a problem	actional reduction modal reduction reduction of the propositional content: topic avoidance message abandonment meaning replacement
Achievement strategies:	**Subtypes:**
Learner attempts to solve communicative problem by expanding his communicative resources	compensatory strategies: (a) code switching (b) interlingual transfer (c) inter-/intralingual transfer (d) IL based strategies: (i) generalization (ii) paraphrase (iii) word coinage (iv) restructuring (e) cooperative strategies (f) non-linguistic strategies retrieval strategies

(Reproduced from Faerch & Kasper 1983b:52-3)

A few points should be noted concerning the framework. First, Faerch and Kasper noted that the distinction between 'topic avoidance' and 'meaning replacement' is rather arbitrary (p.44), and advised that the various semantic reduction strategies should be placed on a continuum. Second, for Faerch & Kasper, (i) code-switching involves NL item(s) in the interlanguage; (ii) interlingual transfer involves a combination/blending of L1 and IL features (at the phonological/ morphological level, it is known as 'foreignizing', and at the syntactic level, 'literal translation'/'transliteration'); (iii) inter-/intra-

lingual transfer refers to a generalization of an interlanguage rule, but the generalization is influenced by the properties of the corresponding L1 structure (p.47). Third, the restructuring strategy (similar, but not identical to, Váradi's 'message abandonment') refers to the learner's reformulation of a message in the middle of the course.

2.6.7. Bialystok (1983a): L1-/L2-based Strategies

Bialystok (1983a) presented a typology of communication strategies, which were classified according to the source of the information on which the strategies are based: (a) the learner's source language, or any language other than L2; (b) the L2 itself; and (c) nonlinguistic or contextual information given with the situation. In her paper, she focused on the first two.

The L1-based strategies include language switch, 'foreignizing' L1 items, and transliteration. Bialystok observed that 'although the strategies foreignizing and transliteration incorporate elements of the target language they originate in native language knowledge.' (p.106).

The L2-based strategies include semantic contiguity (relatedness), description (i.e. verbal description focusing on the physical properties, specific features and/or interactional/functional characteristics), and word coinage. (Bialystok noted that the different types of descriptions are normally used in some combination and often accompany semantic contiguity.)

In the same paper, Bialystok presented results from a study on the strategies used by 3 groups of learners of French. One group was Grade-12 advanced-class students (N=6), another group of Grade-12 regular-class students (N=10), and a group of advanced adult learners (N=14). A cloze test was given to provide an 'individual assessment' of proficiency. Each subject was asked to give instructions to a

native speaker of French to reconsturct a picture on a flannelboard. An analysis was based on the transcription of the subjects instructions. The following results were found:

a) There was no difference among the 3 groups in the number of strategies used.

b) Grade-12 advanced students used significantly fewer L1-based strategies, and relatively more L2-based strategies, than did the other two groups.

c) There was no relationship between the number of strategies and the cloze test (proficiency) scores.

d) There was a significant negative relationship between the cloze scores and the proportion of L1-based strategies for the adult learners.

e) For the students as a whole, the relationship between the cloze scores and the proportion of L1-based strategies used was negative, but not significant.

f) For the advanced students, there was a positive, but nonsignificant, correlation between test scores and proportion of L1-based strategies.

Bialystok found that the anomaly of the advanced student group made the interpretation of the results difficult. It is clear from (b) and (d) that advanced learners tend to use fewer L1-based strategies, reflecting their general linguistic competence in the L2. The non-significant positive correlation between cloze scores and L1-based strategies might suggest that 'strategic competence' was involved (Faerch 1984b), interacting with overall linguistic competence.

2.6.8. J.C. Richards (1971): 'Simplification'

One strategy/process that is frequently discussed in the literature is 'simplification'. This process or strategy can be seen in a wide range of linguistic contexts: ——— in abstracts/summaries for the reader, in parental speech to children, in foreigner talk, in a pidgin situation, in simplified readers for learners, and, of course, in SLA process.

J.C. Richards (1971) provided a personal example of communication strategies. During his initial period of stay in Quebec, he found the form je vais ('I'm going to') easier to handle than the future tense form in French, and so developed the 'intentional' use to cover 'futurity', i.e. to use je vais for both.
In this case, his production task was 'simplified' and made easier. Another personal example was his use of lexical means to replace the use of 'conditionnel passé' tense in French. (e.g. J'avais l'intention de voir le film replacing J'aurais voulu voir le film: 'I had the intention of seeing the film' for 'I would have liked to have seen the film')

2.6.9. Widdowson (1975): 'Communicative Effectiveness'

Widdowson (1975) considered simplification, from the production perspective, as 'a process whereby a language user adjusts his language behaviour in the interest of communicative effectiveness.' It can be regarded as a strategy to facilitate communication. In genuine communicative situations, the learner's attention is generally directed to effective use rather than to correct usage; motivation to achieve communication is more important than to produce grammatically correct sentences. In short, message/meaning is more important than form.

He argued that Selinker's (1972) five factors influencing L2 learning may be regarded as 'tactical variations' or aspects of the

same underlying simplification strategy ——— they are attempts to arrive at effective communication. The adjustment for communicative effectiveness seems to provide an explanation as to why the processes take place at all.

[It should be pointed out that adjustment for communicative effectiveness does not necessarily involve a simplification of the linguistic form (sometimes simplification may actually involve a greater elaboration of linguistic form, as is the case with paraphrase or circumlocution); and that simplifying the form does not necessarily result in the simplification of use, i.e. facilitating communication.]

2.6.10. 'Communicative Effectiveness' & Slobin (1978)

D.R. Richards (1983) agrees with Widdowson that when the L2 learner is pressed by circumstances to get messages across with his limited resources, communicative effectiveness or efficiency rather than grammatical well-formedness will be the most important internal criterion. Even if he possesses the necessary rules, on-line processing does not give him sufficient time to mobilize the conscious grammar. And this will involve the simplification of his output. The learner does this for the sake of efficient or effective communication, given the constraints.

D.R. Richards provided a more detailed characterization of Widdowson's construct of 'communicative effectiveness' by relating it to Slobin's (1978) 4 basic ground rules for a communicative system, which are: (1) Be clear; (2) Be humanly processible in ongoing time; (3) Be quick and easy; and (4) Be expressive.

The 4 charges to language as a communicative system work for the learner (as speaker) as well as the listener, because 'the speaker of a language wants to express himself clearly, efficiently,

effectively and reasonably quickly, and the listener wants to quickly and efficiently retrieve a clear and informative message.' (Slobin 1978:186).

The first dimension Be clear is to strive for semantic transparency: that the surface structures should not be too different in form and organization from the underlying semantic structures, thus making messages easy to produce and to understand. e.g. 'She sent to us many books.'

The second dimension Be processible (in ongoing time) rules that the linguistic code must conform to strategies of perception and production. The first and the second charges overlap considerably, because when surface cues are provided for perception, the utterances become clearer and more transparent. D.R. Richards noted the communicative value of content words in the learner-language, which have more concrete referents and carry more important information.

The third dimension Be quick and easy stresses economy of efforts. 'There are communicative needs to get a lot of information in before the listener gets bored or takes over the conversation; and there are short-term memory constraints to get a message across .... And so, contrary to the charges to be clear and processible, there is also a charge to cut corner.' (Slobin 1978:187) This might account for the absence of many grammatical markers in early SLA, e.g.

John____ now studying in Kau Yan College.

The grammatical be is communicatively redundant (George 1972). Time reference is specified by now, and the progressive aspect by -ing. The meaning is transparent, and the structure without be is quicker to process.

Under this charge, overgeneralization of known IL rules or transfer from L1 rules would satisfy the quick-and-easy criterion.

The fourth charge Be expressive requires that expressions must

be informative and stylistically effective. The speaker normally strives to provide the basic, intended message. If he does not have the best form/structure he will look for an alternative (e.g. by message restructuring, paraphrasing, circumlocution, (near-) synonym, lexicalizing, etc. ——— the kind of 'achievement strategies discussed in 2.6.6.). The goal is to maintain, as far as possible, the basic propositional content.

The ultimate goal of communication is not just efficiency, but also effectiveness. Depending on who the addressee is, communicative effectiveness is normally achieved by stylistic differentiation (at the various linguistic and sociolinguistic levels).

2.6.11. Concluding Remarks

To summarize this section (2.6), we have glanced at a few typologies of communication/production strategies and reviewed a few empirical studies. Several key notions were closely examined. The two empirical studies cited (i.e. Taylor 1975 and Bialystok 1983a) have suggested that the use of certain types of strategies is related to the L2 proficiency of the user. Váradi (1983) has made the point that semantic adjustment/replacement and message abandonment are also tied to the proficiency of the L2 learner. Their observations will be empirically examined in sections 6.8, 6.9, and 6.10. The notion of 'communicative effectiveness' defined in terms of Slobin's (1978) four charges to language seems to provide a coherent explanatory framework for accounting for some interlanguage behaviour in the learner.

2.7. Some Methodological Observations on SLA Research

This last review section summarizes a number of views and criticisms on the form-only or the error-only research methodology and describes some alternative methodologies. The section ends with a methodology favoured in the present study: the function-to-form analysis, which offers opportunity to look at the linguistic evolution of a functional domain.

2.7.1. Morpheme Studies

There have been criticisms that empirical L2 research, until recently, has centred on specific grammatical morphemes and some familiar sentence processes. Very few studies have been conducted which focus on members or subsets of a grammatical category such as the noun phrase, the modals, the tense system, the adverbial, etc. And the early studies tended to focus on the order of acquisition more than the course of acquisition (also known as 'macro-analysis' and 'micro-analysis' respectively).

The reasons for this are not difficult to find. Early L2 studies were modelled on first-language acquisition (FLA) studies whose early emphases were exactly on items such as morphemes (Brown 1973), negations and questions (Klima and Bellugi 1966), etc. Once started, morpheme research became a major paradigm. Another reason is that a methodology for scoring had been established by Brown and his associates, and was ready to use or improve on. Furthermore, the research process is easily replicable.

It is true that we can learn something about SLA through frequency counts and the ordering of morphemes. But the macro-analysis centres only on questions like 'at what stage does the L2 learner come to acquire the progressive morpheme -ing or the past morpheme -ed?' Such an analysis is inadequate because it tells us only when the learner comes to understand particular meanings assigned to particular morphemes, but not how he learns it or how the structure evolves. In SLA research, the when should be always complemented by the how. It is the latter ('micro-analysis') which enables the researcher to have a closer look at the developmental process of the learner. Long and Sato (1984) made a perceptive comment on morpheme studies in general:

> The analysis is goal-oriented, and so misses transitional stages of developement. It looks at the order in which morphemes 'cross the finishing line', which may not be the order in which they first appear and/or develop prior to

that moment. (p.260)

Long and Sato listed altogether ten problems associated with morpheme studies. Some of them have been taken up above. Some others will be taken up below.

2.7.2. Error Analysis

Error analysis (EA) has been a major research methodology in SLA (and probably still is), its hey-day being in the 70's. It was used to establish, negatively, evidence of language development or lack of development, and to generate explanations for the development process. This is self-evident in this Review chapter. EA has generated a large number of hypotheses about the L2 learning and production processes and strategies (cf. 2.6.). However, it is not without weaknesses. Schachter and Celce-Murcia (1977) discussed a number of weaknesses associated with EA. Some of their charges include: (i) EA considers only what the learner produces in error and excludes the non-errors; (ii) some errors may defy clear-cut classification, and their source cannot be easily located; (iii) EA fails to detect difficulty which results in 'avoidance' (Schachter 1974; Kleinmann 1977). To their list we may add at least one more: it fails to detect 'semantic/formal reduction' or 'restructuring'.

(i) and (iii) can be rectified, but only with additional analyses, e.g. with 'achievement analysis' or 'avoidance' analysis (Váradi 1983). (ii) can really be difficult at times (see 2.7.4. and 2.7.5. below).

Now, to study avoidance or restructuring, the precondition is that the researcher knows in advance what the learner's original, intended message is. And this could prove difficult for the researcher/analyst. We shall return to this point later.

2.7.3. Form-Only Analysis

In their very informative review of methodological issues, Long and Sato (1984) discussed three prevalent approaches to SLA research. The first adopts the form-only analysis; the second is form-to-function analysis; and the third is function-to-form analysis. The first approach is represented by the so-called 'morpheme studies' we have referred to. Another good example is Klein and Dittmar's (1979) study (cf. 2.4.10. and 2.5.2.).

In addition to the problems discussed in 2.7.1., morpheme studies are also criticized for concentrating on the 'obligatory context suppliance' of a particular form, while ignoring its occurrence in other non-obligatory contexts. And like error analysis, they have no way to describe the learner's 'avoidance' or 'reduction' behaviour.

In language development, a known form is often extended to some other novel contexts/functions. A form-only analysis takes no account of this general phenomenon/behaviour.

To answer the criticism concerning 'obligatory context suppliance', researchers have adopted a 'target-like-use' analysis as an additional measure (Stauble and Schumann 1983; Pica 1983) to picture the learner's ability more clearly and accurately. To answer the criticism mentioned in the last paragraph, some SLA researchers have shifted to form-to-function or function-to-form analysis.

2.7.4. Form-to-Function Analysis

The form-to-function analysis attempts to answer the question 'What functions does the form X express?' or 'To what uses is the form put?'. The goal of the analysis is to trace the functional distribution of the form at issue. An example of this approach is Frith's (1978) study reviewed in 2.4.7.

In mapping the form to its function(s), a prerequisite is that we have been able to determine the form and the functions it refers to. This may be relatively easy with utterances/sentences produced by (intermediate or) advanced learners, but proves thorny with elementary IL forms. Some researchers at times find it difficult to infer (discourse) functions from the learner's IL forms, even with the help of context. One such failure was truthfully reported by Bialystok (1983b), in a study where she attempted to relate linguistic structures and forms to functions. She succeeded in relating the wh-question structures to four discourse functions, but failed in relating some verb forms to tense functions,

> since it is often difficult to decide what the intended tense was when an error in formation occurs (p.60).

Other analysts take a more 'liberal' attitude to IL behaviour and are prepared to accept 'variants' of the form. The 'progressive form' for Frith (1978), for example, can be any one of the following:

V, Be + V, V + ING, Be + V + ING

She talked about how these 'progressive forms' were used to express a number of functions/meanings. Two points may be observed. First, the recognition of V, Be+V, and V+ING as 'progressive forms' was not based on the structures themselves, but on their association with certain contexts or functions in which they occurred. (This becomes clear when we observe that V and Be+V occurring in some other contexts are recognised as 'perfective forms'.) Second, Frith's analysis assumed that the functions had been identified.

In certain situations, (discourse) functions can indeed be identified unambiguously. In others, the functions cannot be readily identified. This difficulty was pointed out by Kellerman (1984:119) when commenting on Flynn's (1983) study on the use of the present perfect in L2 learners in terms of 4 functions: the result/state perfect, the experiential perfect, the perfect of persistent situation, and the perfect of recent past.

> One major problem with this kind of research ... is that by using free production, Flynn leaves herself the arduous task of categorizing the L2 perfect, no easy matter when it comes to subtle distinctions of meaning contained within one single form. (Kellerman 1984:119)

Facing these kinds of problems, some researchers have shifted from 'form-to-function' analysis to 'function-to-form' analysis.

2.7.5. Function-to-Form Analysis

The function-to-form analysis attempts to answer the question 'What forms are used to express function X?' or 'How does function X formally evolve?' The starting point here is the identification of a functional domain). It then examines the linguistic devices used to encode or express the function. Meisel and Clahsen (1985) is a good example (cf. 2.4.11.).

The crucial decision in this type of analysis is on how to identify and determine a functional context. This can be subjective at times when the linguistic structure does not provide any help, as is sometimes the case in IL production, particularly in the 'basilang'. This notorious problem was reported by Long and Sato (1984), who noted that the unmarked forms of verbs were used to express a wide range of tense-aspect meanings/functions. When the function identification problem is solved, the function-to-form approach offers opportunity to look at the linguistic evolution of various functional domains.

2.7.6. Concluding Remarks

To summarize, the analytical/methodological position that we have been arguing for is the function-to-form approach: to study the learner's linguistic forms in well-defined functional contexts. This by no means suggests that the form-only or the form-to-function approach is no use at all. What this does suggest is that in certain areas of SLA enquiry and with subjects at the lower end of the proficiency continuum, the function-to-form approach should prove superior to the other two since it does not have the form-function mapping problems that often confront the other two approaches (cf. 2.7.4).

2.8. Relating the Reviewed Literature to the Study

In what follows, we shall describe briefly and indicate how the reviewed literature is to be related to the present study.

As has been noted, the literature review indicated that there were very few developmental studies on the use of tense-aspect and time adverbials in pupils learning English as L2 in a formal system/setting; fewer still with Cantonese learners. A description of Cantonese learners' development and use of these grammatical areas would fill a knowledge gap in SLA.

Sections 2.4 (review of tense-aspect studies) and 2.7 (on methodology) pointed to a wide range of analytical methods, including the quantitative, the qualitative, the formal, the functional method, etc. The present study was careful to strike a balance, as far as possible, between the extremes.

In designing the second study, the criticisms discussed in section 2.7 were heeded, and care was taken to avoid the pitfalls. In creating a design which would lead to a function-to-form analysis, Taylor's (1975) and Váradi's (1983) designs proved very informative and contributed useful ideas to the present study [cf. subsection 5.2.1].

(Language) transfer has once again re-emerged as a topical issue in SLA. The studies reviewed in subsection 2.3 highlighted the various conditions under which transfer may or may not occur, conditions such as syntactic similarity or difference between the first and the second language, language universals, typological similarity or difference, 'markedness', etc. Most of these studies, however, ignored the developmental dimension. It will be argued in the discussion chapter that these factors do interact with the time factor, i.e. the time of exposure to a second language.

Recent research on 'communication strategies' (cf. subsection 2.6) has produced a number of typologies for the description (and partial explanation) of interlanguage behaviour. Of special interest to our study are works by Taylor (1975) and Bialystok (1983a), which suggested that language transfer as a strategy is related to the learner's proficiency level, and by Váradi (1983), who was the first L2 researcher focusing on semantic/message adjustment and message abandonment and noting their tie with the learner's proficiency. Their findings are very interesting, and the present study has followed their lead, with a view to look for collaborating evidence but at the same time extend their scope by relating language transfer, message abandonment and message adjustment/restructuring and bringing them under one roof.

In section 2.2, it was noted that early L2 researchers emphasized the notions of 'system' and 'systematicity', while neglecting the variable nature of the learner's performance ('variability'). This bias was later rectified, eg., in Corder (1977), where the learner's language was redefined as 'a dynamic, goal-oriented language system of

increasing complexity.' Although we shall not be using sophisticated techniques (e.g. implicational scale/analysis) for analyzing our subjects' variable performance, we shall show our awareness of, and demonstrate, the variable nature of their performance in a number of analyses, notably those in subsections 6.1.4, 6.14, and 6.16.

The reviewed studies in section 2.4 highlighted a number of confusion areas in English tense-aspect usage, which appear to be universal problems for learners with different language backgrounds. Each of these confusion areas merits further investigation, so that the exact nature and the source of the confusion(s) can be better understood. Findings of this kind have tremendous applied/pedagogical values. It was with this intent that the (non-)obligatory context analysis was performed.

In 2.7, we argued for the function-to-form approach to data analysis, which first identifies a function(al domain) and then examines the linguistic devices used to encode/express the function (over time, if the study is a developmental one). The advantage of this type of analysis is that it provides an unambiguous picture of the linguistic evolution or structural change of a function(al domain). This type of analysis is exemplified in sections 6.14 and 6.16 (on the linguistic development of the Present Perfect and two durative adverbials).

CHAPTER THREE

TENSE, ASPECT, AND TIME ADVERBIALS IN ENGLISH AND CANTONESE

This chapter describes the tense-aspect (T-A) systems and time adverbials in English and Chinese. It consists of two parts: first, the T-A systems; second, the time adverbials (T-adverbials).

Part one begins with some general observations on 'time', 'tense', and 'aspect' (3.1.). It then proceeds to describe the T-A systems in English (3.2.) and Cantonese (3.3.) separately, and finally ends with some comparative/contrastive statements (3.4.) and some observations on the expected behavioural tendencies of the learners (3.5.).

Part two begins with a distinction between 'adverb' and 'adverbial', and an overview of the structural and the functional types of T-adverbials (3.6.1.). It then moves on to briefly examine two structural types of T-adverbials in English: prepositional phrases as T-adverbials (2.6.2.1.) and T-adverbial clauses (3.6.2.2.); and the relative position of T-adverbials in English (3.6.2.3.). It then moves on to examine the structural properties of phrasal adverbials of time (3.6.3.1.) and clausal adverbials of time (3.6.3.2.) in Cantonese. The relative position of the Cantonese T-adverbial in the sentence is then discussed (3.6.3.3.). Part two ends with some comparative/contrastive statements (3.7.) and some expected behavioural tendencies of the learners (3.8.).

3.1. 'Time', 'Tense', and 'Aspect': Some General Observations

'Time', in its general currency, is a physical concept resulting from human cognition through experience with and observation on movement and change in the physical world. For practical purposes, time is conventionally represented as a straight line, with the right end (capped with an arrowhead) pointing or heading towards infinity, and a mid-point representing the moment of speaking, the 'now', as in

Figure 3.1 below:

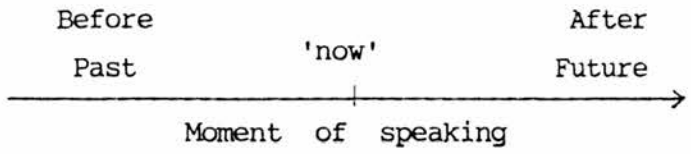


Figure 3.1 A conceptualization of Time

This simple diagrammatic representation can generate a number of statements reflecting our common conceptualization of time. So, for instance, an event located to the right of, or after, the mid-point is said to be a future event, and one located to the left of, or before, the mid-point is called a past event. Depending on the distance between the located event and the moment of speaking, we may have an immediate or distant past/future event. The point to note is that all the descriptive statements made so far are non-linguistic in nature, referring to some notional categories of time relations: the past, the future, and so on. All these notional categories make reference to the moment of speaking —— the mid-point. The time category that overlaps with the mid-point is known as the present.

'Tense', according to Comrie (1985:1), is 'the grammaticalization of location in time.' Unlike 'time', which is a conceptual category, 'tense' is a grammatical category, dealing with the grammatical specification of time. Lyons (1968:304) makes a similar point:

> The category of tense has to do with time-relations in so far as these are expressed by systematic grammatical contrasts.

It should be noted that some languages do not have grammatical devices for indicating the location of an event or state of affairs in time (e.g. English does not have a grammatical device for expressing the future).

Another point to note is that the relationships between the non-linguistic, notional categories and the linguistic, grammatical ones need not be in a one-to-one correspondence. The present tense in English, for example, does not always refer to the present time. The conceptual division of time into 'future', 'past' and 'present' is not faithfully reflected in the grammatical system.

One final point to note, concerning tense and time, is that even though some languages have a tense system, they may have different ways of conceptualizations of time.

'Aspect' is a term that has been subject to various interpretations and applications. Sweet (1955:101) remarks that aspect involves 'distinctions of time independent of any reference to past, present, or future'. In other words, it has nothing to do with the location in time, hence it should be distinguished from the tense category.

Comrie (1976) defines aspect as 'different ways of viewing the internal temporal constituency of a situation'. This implies that the speaker has a choice in viewing a situation in a particular way.

Comrie's treatment of aspect foreshadows Smith's (1983), who takes aspect to be 'semantic property of sentences —— one which presents a situation talked about in certain perspective or focus'. (p.480) She expounds her formulation as follows:

> Speakers can talk about an actual situation in more than one way. For example, suppose that Mary swims regularly at 5p.m. on Mondays. I may talk about a certain swim as an event complete in itself, or as one of a series of swims. I may focus on the beginning or end of the swim, or on the middle; I may talk of the swim as an on-going process, or present it in a non-dynamic way. These are aspectual choices in the linguistic presentation of the swim; they are available even though the properties of situation itself may not vary. (p.480)

This range of meanings comes close to Hockett's (1958:237) view of aspect as having to do 'not with the location of an event in time,

but with its temporal distribution or contour.'

It should be noted that Hockett's, Comrie's and Smith's definitions focus on aspect as a semantic property of the sentence —— the 'sentential aspect'.

Quirk, Greenbaum, Leech and Svartvik (1972), however, appear to regard aspect as a grammatical property of the verb phrase —— the 'verbal aspect':

> Aspect refers to the manner in which the verb action is regarded or experienced. The choice of aspect is a comment on a particular view of the action. English has two sets of aspectual contrasts: PERFECTIVE/NON-PERFECTIVE and PROGRESSIVE/NON-PROGRESSIVE. (underlining added)

Quirk et al. use the term 'aspect' to refer to the grammaticalized distinctions, while Hockett, Comrie and Smith appear to use it to focus on general semantic oppositions such as 'inchoative', 'iterative', 'habitual', 'punctual', 'durative', and so on.

From the above observations, it is clear that the category of aspect embodies a large number of distinctions: a few grammatical, but the great majority semantic ones.

To sum up this sub-section, it may be observed that tense and aspect are two distinct but complementary and interactive sets of grammatical devices for representing time in language. Tense basically serves to locate an action, event or state of affairs in time in terms of before-now, after-now, or right-now. Aspect, on the other hand, serves to specify the internal temporal make-up of a situation which has been located/established in time.

3.2. Tense and Aspect in English

3.2.1. Tense in English

The Major tense-distinction in English is, from a morphological or formal point of view, between 'past' and 'non-past', as can be seen from the following examples:

John was the manager of the company.
John is the manager of the company.

The verb in the first sentence is marked 'past', and the second is not. Quirk et al. (1972:84) adopt the more-traditional labels PAST TENSE and PRESENT TENSE, maintaining that the unmarked tense normally refers to 'present time'. However, Lyons (1968:306) points out that it is in fact misleading to speak of 'present tense' for 'present time', because whereas the past tense positively refers to 'before now' (cf. Fig. 3.1), the non-past does not unequivocally refer to the 'moment of speaking'. Actually, the non-past is also used for 'habitual' or 'timeless' (i.e. all time) statements. The second sentence above is about John's immediate past, present and, under normal circumstances, future career. In other words, the sentence suggests that John was the manager yesterday, he is today, and presumably will still be the manager tomorrow. Nevertheless, it is the present writer's opinion that Quirk et al.'s (1972) terminological position could be defended if they make it clear, as Palmer has done, that 'Present time is any period of time, short, long or eternal that includes the present moment.' (Palmer 1965:69). This is known as the 'inclusive present'. With this understanding, the present study will hereafter use the traditional term 'Present Tense'.

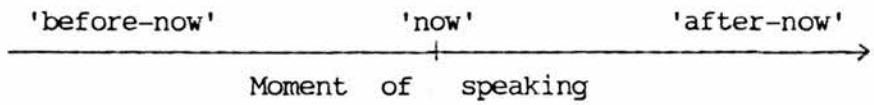
Whichever terms used, the linguistic fact remains that the [±past] opposition is systematically realized in the English finite verb phrases:

John walks / walked / is walking / was walking / has walked / had walked / will walk / would walk / etc. to school ....

English does not have a morphological device to locate an event in future time; so, strictly speaking, English does not have a 'future tense' on par with 'past tense' (cf. Comrie 1985:46–48). To make up for this morphological gap, English draws on other grammatical categories to help express future time events, e.g. by using modal or 'semi-modal' auxiliaries, the present tense, or 'progressive' forms (see discussion on the English aspect), often in conjunction with time adverbials.

The focus, so far, has been on the formal characteristics of the category of the English tense; little has been said about the uses of the tenses. The next few paragraphs outline the main uses of the tenses.

The most basic use of the present tense is, undoubtedly, to locate an event simultaneous with the moment of speaking (Figure 3.1 is reproduced here with minor modification.).



This use is found, for example, in on-the-spot instructions or demonstrations ('First, take the lid off the bottle, and then ....'), simultaneous reports or commentaries ('Now John passes the ball to Bob'), and performative declarations ('I now declare the Games open'). This use of the present is restricted to some well-defined situations.

A more typical, and by far the most frequent and most important, use of the present is to refer to situations which are relatively 'unbound', i.e. 'There is no limitation on the extension of the state through the present into the past and future time' (Quirk et al. 1972: 85), and which include the present moment. The example 'John is the manager of the company' is a typical one. Other examples include 'The sun rises in the east', which is a universal and timeless phenomenon, and 'Mary likes Chinese food', which indicates a habit. This use has a very general reference.

Another use of the present is to refer to planned or scheduled activities which are to take place in the future. Typical examples include 'The first BA shuttle to London leaves at 8:00 a.m.', 'We dine at the Golden Dragon tomorrow as planned.'. Zandvoort (1957: 58) calls this use the future-present, and observes that it is especially common with events denoting coming and going, and that a time adverbial is almost always necessary.

There is one other use of the present tense recognised by Quirk et al. (1972). It helps 'to express the persistence in the present of the effect of a past communication' (p.86):

John tells (= has told) me that you've been to China.

This use is likely to be found in face-to-face spoken situations.

The third and the last use can be considered extended uses of the present tense.

The basic use of the past tense in English is to locate an event which occurs before-now. For example, 'John worked in France.'. Notice that the past tense indicates a very general temporal reference. We do not know, on the basis of the sentence itself, how long and exactly when he worked there; we do not know whether he is still there. More specific temporal information is usually provided by the co-occurring adverbial, if any —— adverbials such as 'from 1977 to 1980', 'for two years', 'last month', and so on.

Apart from this primary, authentic use, the past tense is also used to refer to events not located in past time. One such use is the so-called 'backshifting' commonly found in 'indirect (reported) speech'. Huddleston (1984) discusses this use with the following examples:

The match starts tommorow.

Kim said that the match started tomorrow.

The first sentence is a direct statement/speech; but when it is embedded in another clause whose verb phrase is in the past, there is a tendency to make the subclause verb in line with the past main

verb. However, this backshifting is not something automatic. As Huddleston points out, the subclause verb can retain the original tense, if it is pragmatically permissible, i.e. if the match does take place one day after the moment of uttering the complex sentence:

Kim said that the match starts tomorrow.

Another non-primary use of the past tense is found in the 'unreal' or hypothetical conditional construction:

I wish I had a thousand pounds.

If you wanted to stay away from class, you wouldn't say that to your teacher.

Before moving on to look at the English aspectual system; a few observations should be made about the future reference.

We have already noted that there is no verb form for indicating events located in future time. Very often, other forms or categories are called for to help express the future. The most frequently employed means is to use (modal) auxiliary constructions, quite often accompanied by time adverbials, as in the following:

We shall have our money back next week.

I will leave for Paris tomorrow.

I may come this evening.

But here the future and the modal meaning cannot be sorted out easily. Lyons (1968:310) comments on this point thus:

> It is true that will and shall are commonly used in sentences referring to the future. But this may be regarded as a 'natural' consequency of the fact that statements made about future occurrences are necessarily based on the speaker's beliefs, predictions, or intentions, rather than upon his knowledge of 'fact'.

Other borrowed devices for expressing the future include:

(i) the present progressive, often with a time adverbials:

We are dining at Golden Gate tonight.

This construction carries the meaning of a future happening anticipated, arranged in the present. (c.f. 'We dine at Golden Gate tonight.')

(ii) the Be about to construction (e.g. We are about to leave.).

(iii) the Be to construction, which carries the meaning of arrangement or command, e.g. 'You are to go with us.'.

3.2.2. Aspect in English

From a grammatical point of view, English has two sets of aspectual contrasts: the 'progressive' vs. 'non-progressive' and the 'perfective' vs. 'non-perfective'. The progressive aspect is formally realized by Be + ING, and the perfective aspect by HAVE + EN, as the following examples show:

a. Paul grows broccoli. (-progressive, -perfective)
b. Paul is growing broccoli. (+progressive, -perfective)
c. Paul has grown broccoli. (-progressive, +perfective)
d. Paul was growing broccoli. (+progressive, -perfective)
e. Paul had grown broccoli. (-progressive, +perfective)

The above examples show not only the forms for the progressive and the perfective aspect, but also the combinations of tense and aspect. The two aspects can further combine with one another, on top of the tense-aspect combination, to produce more complex verb phrases:

f. Paul has been growing broccoli. (+progressive, +perfective)
g. Paul had been growing broccoli. (+progressive, +perfective)

The general order of the tense-aspect elements in English finite verb phrase can be represented by the following rule (adapted from Chomsky 1965:107):

Tense (Modal) (Perfect) (Progressive) V

Here, tense can be 'present' or 'past', and modal refers to modal auxiliary. A sentence with all the elements included is exemplified below:

Paul may have been growing broccoli for more than one year.

Let us now consider the uses or functions of the progressive and the perfective aspect.

As the term 'progressive' suggests, this aspect 'indicates temporariness —— an action in progress instead of the occurrence of an action or the existence of a state.' (Quirk et al. 1972:92). As has been noted in section 3.1, a situation can be viewed or presented in a particular way. The progressive presents a situation not as complete in itself, but as taking place —— in the process of completion but the end point being not the main focus. It follows that the situation or the verb must be 'dynamic' in character, or at least viewed to be dynamic. So, in general, verbs that can occur in the progressive constructions are dynamic verbs (see Quirk et al. 1972: 94-7, for a discussion on the syntactic properties and the subclasses of the dynamic and the stative verbs). However, stative verbs can take the progressive aspect under particular circumstances (Lyons 1968:316), recategorized as activity verbs. The point to note is that stative (or non-progressive) verbs taking the progressive aspect often indicate limited duration and carry an emotional colouring. Consider the following:

I hate cooking rice.
I am hating cooking rice.

Hate is essentially a stative verb. When it is recategorized and takes the progressive aspect, as in the second sentence, it carries a sense of temporary annoyance rather than profound dislike, which is the reading one gets in the first sentence.

Another use of the progressive aspect, particularly the present progressive, is to refer to planned or intended activities which are to take place in the future (e.g. 'I'm going to London tonight'). The future use of the progressive aspect is nearly always accompanied by a time adverbial referring to future time.

One other use of the progressive is to present two events as taking place simultaneously, or to present one event as background to the other, e.g. 'I was sleeping when the fire broke out.'

The basic temporal meaning of the perfective aspect is to locate an action or state in a period of time beginning before and coming up

to some reference point (RP). This may be represented by Figure 3.2 (which is adapted from Figure 3.1):

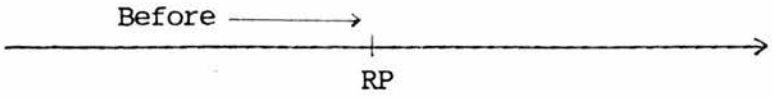


Figure 3.2 A Representation of the Present Perfect

The reference point (RP) can be the moment of speaking in the case of the present tense, some past point in the case of the past tense or some future point. So the present perfect, the past perfect and the so called 'future perfect' can be dealt with together in one stroke/framework.

An alternative formulation is to say that the perfect aspect locates an action/state in a period of time stretching from a reference point backwards into some earlier time (Quirk et al. 1972:91), as represented in Figure 3.3:

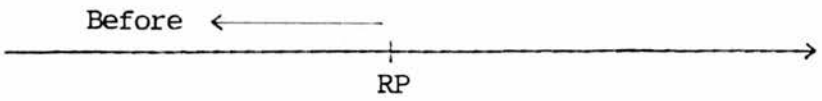


Figure 3.3 A Representation of the Present Perfect

In either formulation, the reference point (RP) is included, and the action/state is always located before RP (i.e. before 'now', before some past point, or before some future point).

We noted in the last subsection that the past tense locates an action/state in past time (before 'now'). However, it differs from the present perfect in the fact that it excludes the RP (i.e. the present moment), showing a clear break from the present moment. Traditionally, the present perfect is labelled 'inclusive past' (i.e. a past event including the present moment), and the past tense is labelled 'exclusive past' (i.e. excluding the present), The following two examples bring out the contrast in form and in meaning:

John has eaten vegetables today/*yesterday.

John ate vegetables today/yesterday.

Time adverbials with distinct past reference (e.g. yesterday) co-occur

only with the past tense, and not with the present tense or the present perfect. The time reference of today incorporates the morning, the afternoon and moment of speaking which may be in the evening. The growing activity may have taken place in the morning (that accounts for the acceptability of the co-occurrence of grew and today if the utterance is made in the afternoon/evening). The acceptable co-occurrence of has grown and today lies with the temporal domain/ coverage of the adverbial.

The choice between a present perfect and a past (i.e. between an 'inclusive' and an 'exclusive' past) depends on how the speaker views and presents the situation, a point we observed earlier. This decision is also reflected in the selection of time adverbial. Huddleston (1984:160-3) discusses some of the main factors influencing the choice between the present perfect and the past. A present perfect is used or required:

a) when an action or state beginning earlier extends up to the present moment, as in 'John has lived and worked in Edinburgh all his life';

b) when an action or state is judged by the speaker to be a sufficiently recent one, as in 'Paul has gone out for lunch' (what counts here is the speaker's subjective notion of recency);

c) when the specific or actual time of occurrence is unimportant or uncertain, as in 'Have you read Comrie's new book on tense?';

d) when the speaker focuses on the present result of a past occurrence and not on the occurrence itself, as in 'I've broken my leg and I can't play football now'.

Examples of the (c) type are sometimes labelled the 'perfect of experience' (Kirsten 1986). It is a looking backwards from present time into the unspecified past. Consider another example (from Kirsten):

> There have been at different times in history different reasons why painters have painted people and why people have wanted to be painted by painters.

The retrospective or experiential interpretation is quite noticeable. The perfect of experience is represented or captured in Figure 3.3.

The (d) type is generally known as the 'perfect of (current) relevance'. Consider the following examples:

> Mr. John Stalker, who was cleared of allegations of misconduct and reinstated by the Manchester police authority, has returned to work.
>
> I've forgotten to bring the file along.

Here, the retrospective interpretation is not appropriate or likely; rather, the present effect or result of a past cause or action is the focus. The interpretation corresponds to Figure 3.2.

What is clear from all these examples of the present perfect is that the specification of the period of time always includes the present, whether it is backward looking or forward looking.

Now let us consider one perfective use found in the past perfect: to establish the time of a situation which occurs before some other past point:

> I was finally able to get a job after I had sent out several dozen letters.

Here the time of sending out letters is past relative to the time of getting the job, which is in turn past relative to the time of speaking. Many grammarians describe this as a past-in-the-past situation. Lyons (1968:316) proposes that this usage is closer to the use of tense. What we have here is a perfective form but with a tense use. In Comrie's (1985) terminology, this is called an 'absolute-relative tense'. This use also applies to backshifting:

> Mary told John that she had passed the qualifying examination (from 'I've passed the qualifying examination,' Mary told John.)

So far, our discussion of aspectual meanings has appeared to be focusing on the form of the verb phrase, or the 'verbal aspect' in form and in meaning. We have said very little about the contribution of the lexical meaning of the verb or that of an adverbial to the received aspectual reading of the sentence. Consider the following pairs of examples:

> 1a) Paul has been to America.
> b) Paul has returned from America.

2a) I've often walked to school.
b) I've always walked to school.

In 1a, we would be inclined to assign the 'experiential' reading to the verb phrase, and in 1b the 'resultative' reading to the verb phrase, possibly due to the lexical meaning of been and returned reinforced by the adverbials to America and from America respectively.

The 'frequentative' and the 'habitual' reading in 2a and 2b are entirely due to the frequency adjuncts often and always.

Recall two previous examples: 'Paul grows broccoli' and 'John is the manager of the company'. Here the unmarked verbs convey the 'habitual' aspect.

To summarize section 3.2.2, it may be observed that as a grammatical category, the English verbal aspect has distinct formal characteristics. While it is true that the verb phrase contributes a lot to the aspectual contrasts, other constituents in the sentence may at times play a decisive role in determining the final shade of the aspectual meaning. As has been demonstrated, we should not be mistaken that sentences without overt tense and aspect markings do not have anything to do with aspectual contrasts. English in fact contains a number of aspectual contrasts not realized through aspectual forms (i.e Be + ING and Have + en). And in many cases, the adverbial in the sentence provides the aspectual reading.

3.3. The (Tense-)Aspect System in Cantonese

3.3.1. Tense in Chinese?

Is there a tense system in Cantonese (Chinese in general)?

The answer is 'No,' if by 'tense' is meant a verbal marker (or a form of verb) for indicating the time of an action/state relative to the time of utterance (Kwok 1971; Cheung 1972; Li and Thompson 1981). It should be noted that the answer does not mean that time relations are not expressed at all in Cantonese. The answer simply says that the expression of time relations is not conveyed by a change of the verb form. Consider the following examples (a reference table for pronunication of Cantonese syllables can be found in Appendix 1):

keui	kʌm	yʌt	sik	min
he	yesterday		eat noodle	(He ate noodle yesterday.)
keui	yʌt	yʌt	sik	min
	day	day		(He eats noodle everyday.)
keui	ting	yʌt	sik	min
	tomorrow			(He'll eat noodle tomorrow.)

The time of eating noodle in each sentence is precisely specified by the adverbial, but there is no formal contrast found in the verb sik (eat). In English, tense helps to establish a general time relation, and the coocurring adverbial specifies the precise time relation (one of the adverbial functions). The point to note is that the specific time reference presupposes the general one, making the second in some sense redundant. In Chinese, the time of an action/state is normally indicated by a time adverbial, some aspectual affix, or derived from the discourse and extralinguistic context.

To conclude, tense is a non-issue in Cantonese (Chinese in general).

3.3.2. Aspect in Cantonese

The next relevant question is: Is there an aspect system in Cantonese?

The answer is 'Yes'.

As in English, aspect in Cantonese refers to the 'internal temporal constituent' of a situation established in time, and is formally marked by a closed class of bound verbal affixes, e.g.:

ngo jou jo gung fo

I do AM homework (I've done my homework.)

se gʌn leun mʌn

write AM thesis (I'm writing (my) thesis.)

jo (咗) is a marker for the perfective aspect, and gʌn (緊) is a progressive marker, presenting the action of writing as ongoing.

It should be pointed out that although grammatical terms like 'progressive aspect', 'perfective aspect', 'completive aspect', etc. are employed in English and Cantonese, the uses and meanings of these terms in one language do not correspond exactly to those in the other language.

Another point is that Cantonese aspect markers, with the exception of two to three which are not included in the discussion, stand in paradigmatic contrast with one another. In other words, they are mutually exclusive and do not co-occur.

For the present thesis, no comprehensive treatment of the Cantonese aspect category is attempted, for which the interested reader is referred to Kwok (1971) and Cheung (1972). Here we focus on a few aspect subcategories and markers, the most important and commonly used

few, which have a direct bearing on our subsequent discussion. These are as follows:

Unmarked aspect		ø
perfective aspect	(Perf A)	jo
experiential aspect	(Exp A)	gwo
progressive aspect	(Prog A)	gʌn
continuative aspect	(Cont A)	hoi

The unmarked aspect

In Cantonese, the 'unmarked aspect' form contrasts with all the other aspect forms. This aspect is used to indicate habitual action, (imminent) future action (with or without time adverbial), to express assertive or contrastive predication, and so on.

E.g.:

keui yʌt yʌt sik fa:n

he day day eat rice (He eats rice everyday.)

nei heui ma:i ngo bei chin

you go buy I pay money ("You go and buy it, I'll pay.")

ngo m fʌn gau

I not sleep ("I don't want to sleep (now)")

The 'perfective' aspect

The perfective marker is jo which indicates the perfection of some activity/event.

E.g.:

keui lai jo la

he come PERF Excl.M (He's come!)

jou jo go da:n gou

make PERF CL cake ("has made/made a cake")

kʌm ma:n jou jo ying hung

last night make PERF hero ("last night he was/became a hero")

Several points may be observed. First, the Cantonese perfective jo is usually translatable by the English perfect or past. There appears to be no contrast between 'present perfect' and 'simple past' as there is in English —— in Cantonese the two converge on the marker jo.

Second, the marker jo can be used to refer to past, present or future events/situations. Here are some additional examples:

kyut ding jo jau da:p nei

decide PERF then answer/reply you ("When I've decided, I'll give you a reply.")

ga yu jeung loi jou jo gau si ne

if in future become PERF teacher SP ("If I (have) become a teacher in future")

The last example indicates the accomplishment of the action not yet performed at the time of utterance.

The third point is that the perfective marker often co-occurs with certain sentence particles [SP] (e.g. la, ne) to convey a sense of finality, a sense roughly similar to the English up as in 'I'll finish it up.'

The fourth point is that the perfective jo does not co-occur with the progressive gwo (see next sub-section).

The fifth point is that jo normally occurs with non-state, non-generic verbs, since it indicates completed/perfected action.

The sixth point is that jo can occur with time-when adverbials.

One other point is that the perfective jo usually cannot co-occur

with m (唔), mei (未), mou (冇), all negative markers. In response to a question like:

jou jo da:n gou mei?
make PERF cake not? ("Have you made the cake yet?")

The answer is:

mei jou / mou jou
not make ("haven't made yet"/ "didn't make any")

with the perfective marker deleted in the negative response.

But as Cheung (1972:147) observes, the perfective marker can be retained in negative construction if a durative time adverbial is present:

*mou tai jo hei

not see PERF film ("Haven't seen film")

mou tai jo hei hou noi lo

not see PERF film long time SP

The experiential aspect

The experiential marker is gwo (過) which indicates that a given action has been done at least once at some indefinite time in the past.

Semantically, gwo appears to be more compatible with events which are not regular.

E.g.: nei gʌm yʌt yam jo cha mei

you today drink PERF tea not ("Have you drunk tea today?" i.e. Have you gone to the tea house today?)

nei yam gwo cha mei

you drink Exp tea not? ("Have you ever drunk tea before?")

The first question is asked against the background of the addressee

going to a tea house everyday. This is just like asking your friend whether (s)he has taken his/her supper, which is a daily activity.

With the experiential gwo, the addresser wants to establish whether or not the addressee has had the experience of drinking tea.

Similarly, heui jo mei gwok
go PERF United States ("have gone to America")

heui gwo mei gwok
go Exp United States ("have been to America")

The perfective jo suggests that he has gone to America; the action of going there is perfected. The sentence does not say whether he is still there or has returned. The experiential gwo implies that he went to America and probably has returned from America.

Since gwo focuses on the event's having been experienced at least once (with the implication that it is over now), it normally does not co-occur with indefinite frequency adverbials such as often, always, or durative adverbials which include the present —— all semantically incompatible with the meaning of gwo. By the same token, gwo does not go with verbs denoting non-repeatable events, e.g. the verb sei : 'die'. Gwo, like jo, occurs with non-stative verbs.

Like jo, the experiential gwo is translatable into the perfect or the past. But unlike jo, which cannot co-occur with the negative markers m, mei and mou (唔、未、冇), gwo can occur with them,
e.g.: mei heui gwo

not go EXP ("never been (there)")

The progressive aspect

The progressive marker is gʌn, which denotes that an activity is in progress and that it is durative in nature,

e.g. sin sang hang gʌn yap lai m hou gong la

Teacher walk PROG enter in not speak SP
("The teacher's walking in, don't speak!")

Like English, the progressive marker gʌn occurs with non-state activity verbs, i.e. verbs that signal the active participation and involvement of an animate subject in an event. Gʌn generally does not occur with stative verbs (e.g.ming bak :'understand') or verbs describing instantaneous, non-repeatable activities (e.g. dit: 'drop'); nor does it co-occur with definite time adverbials.

Unlike English, the progressive gʌn does not co-occur with the perfective jo

The progressive gʌn can occur with past, present or future durative activities:

keui kʌm yʌt lei ge si hou ngo tai gʌn bou ji

he yesterday come POSS time I read PROG newspaper
("When he came yesterday I was reading newspaper")

go go duk gʌn syu m hou chou

Brother read PROG book not shout
("Brother is reading, don't be noisy/don't shout")

nei ha sing kei fong ga ngo ying yin fa:n gʌn gung

you next week on holiday I still work PROG
("When you're on holiday next week, I'll still be working")

The progressive marker together with the verb is negated by m + hai placed before it:

ngo m hai se gʌn syun

I not write PROG letter (I'm not writing letters)

The continuative aspect

The continuative marker is hoi (開) which denotes the continuance of an activity.

Hoi is often misrepresented as a variant of gʌn. It is true that both denote on-going activities, but there is one important difference. Consider two Cantonese examples:

ngo di heui gʌn go ga:n cha:n sʌt m cho a

we go PROG that CL restaurant not bad
("The restaurant we're going to is quite good!")

ngo dei heui hoi go ga:n cha:n sʌt m cho a

we go CONT that CL restaurant not bad
("The restaurant we've been going to is quite good!")

Gʌn focuses on the on-going process now, while hoi stresses the continuance from an indefinite past time right up to the time of utterance, with no implication that the action is still going on now. Hoi focuses on the on-going process before-now. Like the progressive gʌn, hoi generally occurs with durative activity verbs.

Summary

To sum up, Cantonese aspect markers are bound verbal affixes. The markers that have been studied enjoy a high frequency of use,

particularly jo and gʌn. Some of the Cantonese aspect markers perform functions which are normally done by two categories in English. As has been obvious from the discussion, the uses and meanings of the terms like 'perfective', 'experiential', etc. are not exactly the same.

With this general understanding of the tense-aspect system in English and Chinese, let us proceed to make some comparative and contrastive observations which may serve as input to our better understanding of the learning of English tense and aspect by Cantonese learners.

3.4. Comparison and Contrast of the Cantonese and English Tense-Aspect (System)

3.4.1.

It seems clear from the discussion in sections 3.2 and 3.3 that Cantonese and English have quite different tense-aspect systems. The most noticeable difference is, of course, the absence of tense (marking) in Cantonese (and Chinese in general). So, Cantonese uses heui (去:go) for both go and went in English. To indicate the time frame of going, Cantonese makes use of time adverbials, or discourse/pragmatic context, or draws on some verbal aspects.

3.4.2.

Both languages, however, have verbal aspects which denote the internal and essential characteristic or an action or state, characteristics such as beginning, continuation, progression, completion, experience/result of action, and so on. However, verbal aspect in

English is experssed by Be + ing and Have + en, whereas in Cantonese, it is expressed by affixes attached to the verb.

3.4.3.

In structural terms, the English verbal aspect in conjunction with the two tenses, constitutes a relatively complex system of tense-aspect marking. The Cantonese verbal aspect, on the other hand, is comparatively simple, owing to the absence of tense marking and the simple attachment of affixes to the verb.

3.4.4.

Both languages have the perfective aspect indicating completed action, but its emphasis and implications are not quite the same in the two languages. The English perfective (Have + en) emphasizes an action or state occurring in a period of time stretching from a reference point back into some earlier time (cf. p.16-17), but the Cantonese perfective focuses more on the completion of an action.

3.4.5.

Since it stresses the duration/period of time leading to a specified point, the English perfective co-occurs with durative adverbials but not time-when adverbials. However, the Cantonese perfective may co-occur with adverbials indicating definite time points such as kʌm yʌt (琴日 : yesterday). ting yʌt (聽日 : tomorrow) [cf. p.107]

3.4.6.

Since it focuses on completion of action (i.e. focusing on the end-point of an event/action), the Cantonese perfective does not normally occur with generic or stative verbs (which do not denote action/state with internal modulation).

3.4.7.

The experiential aspect (gwo 過) in Cantonese and the experiential situation of the English perfective both refer to something happening/experienced at least once in the indefinite past. But the 'perfect of experience' in English lacks the subtle distinction found in the experiential gwo which contrasts with the perfective jo.

3.4.8.

Both Cantonese and English have the progressive aspect indicating an action in progress, which, by definition, has duration and is incomplete . The English progressive also suggests continuation of the current action into the future (the English progressive is sometimes employed for future reference), the continuative meaning is not strong in the Cantonese progressive (gʌn 緊) which emphasizes the actual progression of action now (cf. p.111).

3.4.9.

The English progressive aspect may be used to indicate near future, intention, repetition (with momentary verbs), emotional colouring, and so on, which are lacking in the Cantonese progressive gʌn.

3.4.10.

On the other hand, the Cantonese continuative aspect (hoi 開), which emphasizes the continuance of an action in a period of time stretching from an indefinite past point right up to the time of speaking, is not matched by the English progressive.

3.4.11.

In English, the perfective and the progressive aspect can co-occur, but in Cantonese, the two are contrastive and mutually exclusive.

3.4.12.

Returning to the perfective jo, it was observed (p.107) that it may be used to refer to present, past, and future action. The same range of reference is, in fact, also found in the English perfective (has seen, had seen, will have seen). This means jo is the formal correspondence with each of the three perfectives in English.

3.4.13.

It was also observed that in Cantonese, the perfective jo and the experiential gwo can both be translated into the English past tense or the present perfect, and vice versa.

3.5. Some Behavioral Tendencies of the Learners: Part I

On the basis of the above contrastive observations, it would be reasonable to expect that the following behavioral tendencies might be found in Cantonese learners of English when they come to learn and use the English tense and aspect.

a) The learners will have a tendency to use the unmarked (or 'untensed') forms to a significant degree in places where the tensed forms are called for. (This expectation is based on observation in 3.4.1).

b) The learners will tend to get the linguistic forms confused when coming to use the English 'simple past' and 'present perfect' —— confusion arising from the lack of grammatical distinction in Cantonese to refer to the English 'past' and the 'present perfect' (cf.3.4.13).

c) The learners will tend to get the linguistic forms confused when they come to use the English present perfect and the past perfect —— confusion arising from the Cantonese perfective marker jo being in formal correspondence with the English have + en and had + en (cf.3.4.12).

d) The learners will tend to keep a distinctive formal use of the English progressive and the perfective, since the same distinction is observed in the mother tongue (cf.3.3.4 and 3.4.8).

e) The learners will tend to exhibit the behavioral tendencies described in (a) - (c) more often at the early stages of L2 development.

The data and results in later chapters will provide empirical information about the reasonableness of the expectations.

3.6. Time Adverbials in English and Cantonese

This section briefly describes time adverbials in English and Cantonese. It begins with a definitional distinction between 'adverb' and 'adverbial' and then quickly moves onto time adverbials. Following the comparative pattern established earlier in the chapter, it first discusses the English temporal adverbials and then the Cantonese ones. Throughout the discussion, attention will be paid to (i) the internal structure of the time adverbial, and (ii) its positional relation with other constituents in the sentence.

3.6.1. 'Adverbial' and 'Time Adverbial'

'Adverb' must not be confused with 'adverbial'. The former is a form class (or 'part of speech') on a par with other classes like 'noun', 'verb', 'adjective', etc. 'Adverbial', on the other hand, is a syntactic or grammatical function on par with 'subject', 'object', etc.; it is one of the important constituents of the clause structure (cf. Quirk et al. 1972:342). The primary syntactic function of an adverbial is to modify the whole clause or some part of it (largely the predicate), or to relate clauses/sentences.

An adverbial may be realized by one of the following structures: an adverb, a noun phrase, a prepositional phrase, or a clause. This holds for English as well as for Cantonese, as exemplified in the following pairs of sentences:

Adverb ('singleton')

a) Mr. Wong will come to Hong Kong soon.
   wong sin sang jau fai lai heung gong

b) 王 先生 就 快 嚟 香 港
   "Mr. Wong AM soon come Hong Kong"

Noun phrase

a) Mr. Wong will come to Hong Kong next year.
wong sin sang (heung) ming min

b) 王 先生(喺) 明 年 嚟 香 港
"Mr. Wong Prep. next year come Hong Kong"

Prepositional phrase (PP)

a) Mr. Wong will come at about three o'clock.
wong sin sang dai koi heung sa:m dim jung lai

b) 王 先生 大概 喺 三 点 鐘 嚟
"Mr. Wong about at 3 o'clock come"

Clause

a) Before he became a teacher, Mr. Wong had visited Hong Kong.

mei jou lou si ji chin, Wong sin sang lai gwo heung gong

b) 未 做 老師 之 前 王 先生 嚟 過 香 港
"not become teacher before", Mr. Wong come Exp AM Hong Kong

The first point to note is that the above examples represent four structural types of adverbials. The second point to note is that the four structural types perform a similar function: to specify the time of an event or action. Since this is indeed the primary function of time adverbials (T-adverbial), we shall take it as a working definition. Quirk et al. (1972:482) subclassify this general temporal function into 4 semantic categories:

a) T-adverbials that specify or imply a point of time ('time-when').

b) T-adverbials that specify an extended period of time which may or may not be related to a reference point, including the moment of speaking (time-duration).

c) T-adverbials that specify (in)definite frequency of time/period (time-frequency).

d) T-adverbials that specify 'some relationship in time' (time-relationship).

It is important to emphasize that these are not water-tight classes; no semantic classifications can achieve this. Some slight overlaps cannot be avoided.

3.6.2. Time Adverbials in English

We have just looked at four structural types of T-adverbials. For the present purposes, we shall examine the internal structure of the last two structural types, namely, the PP-adverbials and the clausal adverbials of time.

3.6.2.1. Internal Structure of PP-Time Adverbials

In English, the great majority of prepositional phrases (PP) have the following basic internal structure :

Preposition + Nominal

a preposition followed by its nominal complement, which is either a noun, noun phrase or noun clause. Except in some transformed constructions in which the preposition head is 'stranded' and made a post-posed element (cf. Quirk et al. 1972:300), a preposition is always 'pre-posed', i.e. coming before its complement. Prepositional phrases functioning as T-adverbials are no exception to this structural requirement.

Another observation concerning the structural properties of PP-time adverbials is that the preposition may, under certain conditions, be 'absent' or 'omitted'. Quirk et al. (1972:319) discussed some of these conditions.

(A) Prepositions of time-when phrases are always omitted when immediately followed by the so-called 'pointing' or deictic words

this, that, next, last, or words having the meaning of these words.

a) I've asked them to come *on next Saturday/next Saturday.

b) I've invited them to come *on tomorrow evening/tomorrow evening.

On tomorrow evening is considered ill-formed because 'tomorrow' suggests "the next day", according to Quirk et al.

(B) Prepositions of time-when phrases are also omitted when immediately followed by quantifiers some and every:

Mr. Wong comes to work *on every Saturday/every Saturday.

(C) The preposition for in durative phrases is, according to Quirk et al. almost always omitted when followed by noun phrases beginning with all, as in

Mr. Wong stayed at home *for all day/all day.

(D) Prepositions of time-when phrases may be optionally omitted when the deictic phrases refer to 'times at more than one removed from the present', as in

Mr. Wong will come (on) Saturday week.

Mr. Wong came here (in) the August before last.

(E) Optional omission may also apply to 'phrases which identify a time before or after a given time in the past or future' (Quirk et al. 1972:319), excluding the time of speaking:

I met Mr. Wong (on) the following day/
(in) the previous year.

(F) The preposition for in durative phrases may be optionally omitted, as in

We stayed there (for) three months.

(G) Prepositions of deictic phrases tend not to be omitted when the noun phrase complement is in inverted word order, though omission is possible:

John has decided to come (on) Saturday next.

(H) Prepositions of non-deictic phrases with the cannot be omitted (cf. E):

I met Mr. Wong *the day / on the day returning from U.K.

(I) Despite the observation in (F), the preposition for in durative phrases with 'event', 'activity' or 'process' verbs cannot be omitted:

I haven't talked to Mr. Wong *two years/for two years.

This relatively lengthy discussion of the omissibility of prepositions of time phrase is a necessary one as it has provided us with a setting for studying the learners' PP-time adverbial usages.

3.6.2.2. Internal Structure of Clausal Time Adverbials

Next, we proceed to look at the internal structure of the adverbial clause of time (T-clause). Bascially, a T-clause has the following internal structure:

T-subordinator + Clause

The time subordinators, like all other types of subordinators, must occur at the beginning of the clause, similar to the position of the prepositions in prepositional phrases. The T-subordinators include after, before, since, when, until, till, etc. Some of these may also functions as prepositions when followed, for example, by a temporal noun phrase (e.g. 'since last week') or a V-ing ('since leaving college').

A T-clause may be realized by a full finite clause, a 'non-finite clause', or a 'verbless clause' (Quirk et al. 1972:744).

a) After he (had) finished the examination, John went to a pub to get drunk.
b) Having finished the examination, John went ....
c) After finishing the examination, John went ....
d) When on his way home, John met an old friend.

(a) is a full, finite T-clause, (b) and (c) are examples of 'non-finite' T-clause, and (d) a 'verbless clause'.

Notice that the traditional use of the term 'clause' is confined to example (a); (b) and (c) would be called 'participial phrases', and (d) simply a 'time phrase'. Quirk et al. use the term 'clause' to cover the four types of examples. Despite the terminological difference, (a) - (d) are recognised as T-adverbials by both analyses.

To summarize, the PP-time adverbials and T-clauses have three structural features in common: first, each is composed of two units (Prep. + Nominal/subordinator + clause); second, the ordering of the two units is relatively constant, 'immobile'. Both can undergo some structural reduction without affecting the original function.

3.6.2.3. Positions of Time Adverbials

As regards the positional relation between the time adverbial and other constituents in the sentence, the most common positions for time adverbials are the initial and final, bearing in mind that they either provide a temporal setting for an event, or specify the time of an action/state. The first function would call for a sentential time adverbial, i.e. an adverbial having the entire sentence as its scope. The second function would call for a VP-adverbial, an adverbial having the predicate as its scope.

This general observation must, however, be modified, for the use of some specific time adverbials, by the following considerations: the structure of the adverbial involved, the stylistic balance of the whole sentence, the relative prominence of the constituents in the sentence, the semantic properties of the adverbial, etc. All these, and perhaps some other considerations, will play a part in determining the position of the adverbial (Jacobsen 1964).

Given the same modification function, clausal adverbials will have less freedom to move around, because of their relative size (length) and 'heaviness' (information weight/content), than will the phrasal or 'singleton' (single-word) adverbials. The latter also have the advantage of being easier to fit in with the stylistic adjustment. On these counts, phrasal and singleton adverbials may sometimes occur in some 'medial' positions (see Quirk et al. 1972: 426).

3.6.3. Time Adverbials in Cantonese

We established, in section 3.6.1, that both English and Cantonese have the same four structural types of adverbials. Here, we shall examine the structural properties of the phrasal and clausal adverbials of time.

3.6.3.1. Internal Structure of PP-Time Adverbials

Before discussing 'prepositional phrases' in Cantonese, it must be made clear that this brief, selective discussion will not go into the relationship between ' prepositions' and 'coverbs' in Chinese (Li and Thompson 1981). Briefly, 'coverbs' in Chinese are a class of words many of which partly behave like verbs and partly like prepositions. Many of these coverbs were formerly verbs, but in the course of development and change, they have gradually acquired the prepositional use. A clear example is the following:

Ngo yung yun bʌt se syun

I use/with pencil write letter

The two readings of this sentence in Chinese may be translated into

English as follows:

a) I use a pencil to write letters.
b) I write letters with a pencil.

The verbal force of yung (用) is very strong. Many coverbs have, however, acquired relatively stable prepositional use in defined contexts, i.e. the verbal force of these coverbs are weak. It is this group of coverbs or prepositions that we are interested in. (Hereafter the term 'preposition' is used.)

The basic structure of a Cantonese prepositional phrase is like the English one:

Preposition + Noun Phrase

Some of the examples include:

(i) wong sin sang heung ting yʌt lai

"Mr. Wong on tomorrow come"
(Mr. Wong comes/will tomorrow.)

(ii) heung dung tin mou yʌn seung cheut ga:i

"in winter no man want go street"
(Nobody wants to go out in winter.)

(iii) chung sa:m dim jou dou chʌt dim

"from 3 o'clock do to 7 o'clock"
(work from 3 to 7)

(iv) yau ha: yut jou hei

"from next month work AM"
(starting to work from next month)

The first thing to note is that the Cantonese preposition heung (喺) is equivalent to the English at, on, in. The second point is that the 'correlative' durative prepositional phrase ("work from 3 to 7") is similar to the English correlative prepositional phrase.

Prepositions of time-when phrases almost always get deleted when the phrases are not in the sentence initial position. When the prepositional phrase occurs initially, prepositions may be variably omitted. So, heung in example (i) is generally omitted, while heung in example (ii) tends to stay.

Durative and frequency meanings are realized by nominal phrases without prepositions. For example:

(v) lau yi jo keui hou noi

"notice Perf. AM him very long time"
(I've noticed him for a long time.)

(vi) keui fʌn jo sa:m go jung tau

"he sleep Perf. AM 3 hour"
(He has slept for 3 hours.)

(vii) hou noi mou gin gwo keui

"very long time not see Exp AM him"
(I haven't seen him for a long time.)

There is one type of noun phrase which may have an adverb as modifier; together they form a time-when adverbial:

(viii) leung yʌt chin chin leung yʌt

"two day ago" "ago two day"

The adverbial element chin (前) may pre- or post- modify the noun head. One may be tempted to regard the second variant as a kind of preposition + noun phrase, but the first variant stands in the way to make the treatment satisfactory (cf.2.5.4).

3.6.3.2. Internal Structure of Clausal Time Adverbial

The internal structure of a Cantonese T-clause is as follows:

(subordinator+) clause (+subordinator)

The most noticeable feature of the structure is the possibility of having the subordinator (some Sino-linguists call it 'linking element') placed after the clause. Consider the following examples:

(ix) ji chung lei hoi hok ha:u yi hau mou gei wui gin min

"since leave school after no chance see/meet"

(since [we] left school, [we have had] no opportunity to see each other)

(x) sik fa:n ji/yi hau ngo tʌi din si

"eat rice after I watch TV"

(After I ate/had eaten my meal, I watched TV)

(xi) mei jou gung fo yi chin m jeun tʌi din si

"NEG do homework before NEG allow watch TV"

(Before finishing the homework, you are not allowed to watch TV)

(xii) dong je dung jok jeun hang si fʌt yin yau yʌn dai siu yʌt seng

"when this action progress time, suddenly have person big laugh one sound"

(When this action was in progress, someone had a sudden laugh)

(xiii) mui dong seung hei ga: kei gong jok jau ma:n lok lai

"whenever think about holiday work then slow down"

(Whenever I think about holiday, my work then immediately slows down)

The first point to note is that example (ix) and example (xii)

have both clause-initial and clause-final 'subordinator'. In English since and after are mutually exclusive; only one or the other can occur in one subclause. In Cantonese, they can co-occur. The subclause has the combined meaning of the durative since and the time-when after.

The second point to note is that when ji chung (自從) in (ix) is removed, its temporal meaning remains more or less the same. However, when yi hau is removed, there is a slight sense of awkwardness.

The same can be said about example (xii). In a way, dong -- si ("when -- time") may be paraphrased into 'At the time when...'. When dong ("when") is removed, the temporal meaning of the subclause remains the same: the English translation equivalent is the same. But when si ("time") is removed, the semantic sense is incomplete.

To summarize at this point, the great majority of T-phrases in Cantonese are without prepositions, particularly the durative and frequency phrases. The internal structure of the Cantonese T-clause is different from that of the English, in that the former may have a clause-initial (xiii) or clause-final subordinator (xi), or both in the same subclause (ix), while the latter may have clause-initial subordinators only. (See example (d) and discussion in the next section)

3.6.3.3. Positions of Time Adverbials

As regards the positioning of Cantonese adverbials in the sentence, we may distinguish two positional classes of adverbials: the 'movable' T-adverbials and the 'non-movable' ones (Li and Thompson 1981:320).

The great majority of movable time adverbials are those that can occur either in the sentence-initial position or in the position immediately after the subject or topic of a sentence, the so-called medial (M) position. Below are a few examples:

(a) gʌm yʌt ngo m hoi sʌm
今日 我 唔 開 心
"today I not happy"

我今日唔 開心
I today not happy
(Today I am not happy)

(b) ngo sa:m dim jung hoi wui
我 三 点鐘 開会
I 3 o'clock open meeting

三点鐘我開 会
3 o'clock I open meeting
(I have a meeting at 3 o'clock)

(c) keui yi chin m sik yin
佢 以前 唔 食煙
he before not smoke

以前佢唔 食煙
Before he not smoke
(He didn't smoke before)

(d) mui dong ngo seung hei ga: kei
每當 我 想 起 假期
whenever I think about holiday, ...

我每當 想 起 假期
I whenever think about holiday, ...

The first point to note about these movable T-adverbials is that they can and tend to function as sentence modifiers; they provide the temporal frame for an event or state to occur. Secondly, they have negation in their scope, and not the other way round, as exemplified by examples (a) and (c). Thirdly, the adverbial subordinator whenever in (d) is movable, another structural feature of Cantonese subordinators not shared by the English counterparts.

The non-movable T-adverbials may be subdivided into two main groups: those that are confined to the after-subject/topic, M position, and others that occur in the sentence-final position.

(e) keui yi ging jau jo la
佢 已經 走咗嘩
"he already go Perf. M SP"
(He has already left/gone)

* 已經佢走咗嘩
* 佢走咗嘩已經

(f) keui ying yin heung heung gong gung jok
佢 仍然 喺 香港 工作
"he still in Hong Kong work
(He still works in Hong Kong)

* 仍然佢喺香港工作
* 佢喺香港工作仍然

(g) ngo fʌn jo sa:m siu si
我 瞓咗 三小時
"I sleep Perf. 3 hour"
(I have slept for 3 hours)

* 三小時我瞓咗
* 我三小時瞓咗

(h) keui lai jo sʌp fʌn jung
佢 嚟咗 十分鐘
"he come Pref. ten minute"
(he came for ten minutes)

* 十分鐘佢嚟咗
* 佢十分鐘嚟咗

From the few examples, it appears that the non-movable T-adverbials tend to be the 'durative', the 'frequency' and the 'relationship' type.

Also they appear to modify the predicate more than the whole sentence.

If the above observations are correct, and further examples support them, it may then be tentatively suggested that the pre-verbal, movable T-adverbials tend to deal with time-when, and the post-verbal, non-movable T-adverbials tend to indicate duration, frequency and 'relationship' (Quirk et al. 1972:497); also, the former are relatively sentence-oriented, while the latter more predicate-(VP-)oriented. This suggestion must, however, take notice of the considerations discussed in section 3.6.2.3.

3.7. Comparison and Contrast of Time Adverbials in English & Cantonese

From the brief description and discussion of time adverbials in English and Cantonese, the following points emerge.

3.7.1.

Both English and Cantonese have similar structural types of time adverbials (T-adverbials), i.e. T-adverbials are realized by adverbs ('singletons'), noun phrases, prepositional phrases, and clauses. And T-adverbials in both languages appear to cover a broadly similar range of temporal meanings —— 'time-when', 'time-duration', 'time-frequency', and time-relationship'.

3.7.2.

At the phrasal level, while the time-when, time-duration and time-frequency functions can be realized, in English, by prepositional phrases, only the time-when function is realized by prepositional

phrases in Cantonese. In Cantonese, the time-frequency and time-duration functions are realized by noun phrases. In general terms, then, Cantonese uses the prepositions of T-phrases far less than English does. Apart from using noun phrases to realize the time-duration and time-frequency functions, Cantonese tends to omit the prepositions of the great majority of time-when phrases (cf.3.6.3.1). The net result is that Cantonese has very few occasions on which prepositional phrases are used to realize temporal functions. Noun phrases, on the other hand, are heavily used for expressing various temporal functions.

3.7.3.

There are a number of conditions under which prepositions of PP-time adverbials in English may or may not be omitted. These conditions of 'omissibility' involve, among other things, the semantico-grammatical notions of 'deixis' and quantification, as well as the semantic properties of the verb in the sentence.

3.7.4.

The most noticeable contrast between clausal adverbials in English and those in Cantonese is the positioning and the co-occurrence restrictions of the subordinators.

In English, the matter is relatively simple. There is only one subordinator per subclause and it is always clause-initial.

In Cantonese (and Chinese in general), there may be more than one subordinator per subclause, and in some cases two subordinators with different but related semantic properties may co-occur in the same subclause. Subordinators in Cantonese consist of three kinds: clause-initial, clause-final, and 'movable' —— the last type may occur clause-initially, or medially after the subject/topic.

3.7.5.

As regards the positional relation between the T-adverbial and the other constituents in the sentence, the modification scope or function of the adverbial appears to play an important role in the placement in both languages. There are, however, at least two characteristics in Cantonese T-adverbials which distinguish themselves from the English counterparts. First time-when phrasal adverbials in Cantonese almost always occur preverbally.

ngo sa:m dim jung hoi wui

"I 3 o'clock open meeting"
(I have a meeting at 3 o'clock)

In English, the unmarked position for the adverbial will be the sentence-final, post-verbal one. Secondly, the great majority of T-clauses in Cantonese tend to come before their main clauses:

T-clause + Main clause

The illustrative examples in section 3.6.3.2 reflect this 'typological' tendency. The relative order of the two clauses is 'fixed'; swopping their positions would result in strange and unacceptable expressions. English has greater freedom in moving the T-clauses around.

3.7.6.

One final observation has to do with the relative positions of temporal adverbials within the same semantic category or in different categories (i.e. 'time-when', 'frequency', and 'duration' —— W, F, D).

Given normal information structure, English tends to have the following order:

(D) (F) (W) (Quirk 1972:500)

In contrast, Cantonese tends to have the opposite order:

(W) (F) (D)

Turning to the time-when category itself, we may observe that

English tends to, under normal circumstances, have the following hierarchical order (cf. Quirk et al. 1972:486):

(specific point) (part of day) (day) (month) (year)

Not many utterances or sentences, of course, take up the whole range. Cantonese, on the other hand, has the opposite order, as exemplified in the following example:

je sin sang heung yʌt gau bat luk nin chʌt yut
謝先生响 一九八六年 七月
Mr. Tse in 1986 year 7 month

yi sʌp yʌt ha: jau sei dim dou dat leun deun
二十日下晝四点到達倫敦
20 day afternoon 4 o'clock arrive in London

(Mr. Tse arrived in London at 4p.m. on 20th July, 1986.)

As has been noted, the English or the Chinese order may be modified to suit local demands or circumstances; the observations made in section 3.6.2.3 are valid here.

3.8. Some Behavioral Tendencies of the Learners: Part II

On the basis of the observations in sections 3.6 and 3.7, it would not be unreasonable to expect that the following tendencies might be found in Cantonese learners of English when they use temporal adverbials in English:

a) The learners will tend to omit the prepositions of the PP-time phrases in English (based on observation 3.7.2).

b) The learners will show confusion in the use of the English time-

when prepositions at, on, and in —— caused by the fact that there is just one linguistic form heung in Cantonese for the three meanings (cf. 3.6.3.1).

c) However, where learners do not 'follow the urge of their native usage', they will nonetheless be confused by the 'omissibility' conditions for the obligatory/optional deletion and retention of prepositions of T-phrases (cf. 3.6.2.1 and 3.7.3).

d) In the construction of English T-clauses, the learners will be influenced by the way Cantonese T-clauses are constructed. Specifically, the positioning of the subordinators and the choice of subordinators will feel the influence.

e) The learners will tend to exhibit the behavioral tendencies described in (a) - (d) more often at the early stages of L2 development.

We shall see in later chapters how far the expectations of the learners' behavioral tendencies are borne out by the empirical data.

CHAPTER FOUR

THE FIRST STUDY

This short chapter describes the first study on the development and use of tense and aspect in Chinese learners of English, which ended in failure.

4.1. Aims and Design

The primary purpose of the study was to investigate empirically the developing ability of Chinese pupils to use tense and aspect in English in a formal-learning setting. In designing the study, the following major points were considered:

a) The study should cover the whole of secondary schooling;

b) the data must come from the pupils' 'naturalistic' use of English; and

c) the study should not disrupt normal teaching and learning.

Criterion (a) would mean a cross-sectional design, as it was not possible to follow the pupils' development from Secondary 1 through Secondary 5. Criterion (b) would call for spontaneous data from 'contrived conversation' in English. Trial sessions had been conducted, using methods such as (i) story re-telling after listening to one, (ii) describing a picture story, (iii) answering questions after looking at some colourful pictures, and (iv) impromptu conversation. The results from the trials were unsatisfactory. Most pupils were not eager to respond; some simply avoided looking at the researcher or answering (the 'avoidance' strategy). This was particularly the case with pupils from lower levels. There were additional problems. The trial oral sessions could be conducted only after school hours (Criterion C). However, some pupils had to go home; some had to participate in extracurricular activities organised for them; some others did not feel they liked the meeting. Very few were really willing to cooperate. In the end, it was decided that written data would be used.

The most 'naturalistic' written data would be the pupils' written assignments such as compositions and summaries. Only compositions were used, as summary-writing did not begin until Secondary 3 or 4.

The next consideration was the period covered. It was decided that compositions covering the whole academic year would be collected from the sampled pupils. The final design of the (first) study is summarized below in Figure 4.1:

Figure 4.1 Design of the First Study

School: 1
Levels: Secondary 1, 3, 5
Subjects: 1, 2, 3 --- 30 (in each level)
Task: compositions (during the school year)
Time: 1 academic year

N = 90 (1 x 3 x 30)

The participants in the first study were 90 pupils from an established co-educational Anglo-chinese school, 30 each in Secondary levels 1, 3, and 5. The subjects were selected through random sampling. For example, if there were three classes of Secondary 1, 10 subjects would be chosen from each class by picking them out from the class roster at n-th interval. A balance of boys and girls was observed.

It was arranged with the school principal and the English head-teacher that the written compositions would be collected at the end of the academic year (i.e June). It was thought that this would not disrupt normal teaching and marking, or make some class-teachers feel uneasy because their corrections and markings were being inspected.

An analytical framework was developed which examined the pupils' use of 7 tense-aspect subcategories, each with a letter and number

code. They are: the simple present (A1), the present progressive (A2), the present perfect (A3), the simple past (B1), the past progressive (B2), the past perfect (B3), and the simple future (C1). The analytical framework can be found in Appendix 2.

4.2. Preliminary Analysis

A preliminary analysis of compositions from 10 subjects at each of the three levels was performed. To start with, the compositions were marked for each correct or incorrect use of the seven categories. For each incorrect use, what was actually put down was noted and assigned to an error category. For example, if an intended or obligatory tense was the simple past (B1), but the subject put down the simple present (A1), then it would be tallied incorrect and assigned to A1 'non-target-like use'. The scoring results were then transposed on to a score-sheet showing individuals' tense-aspect scores for the whole academic year. A sample of score-sheet can be found in Appendix 3.

Each subject's overall scores were based on a total of correct uses in all the 7 tense-aspect contexts in his compositions. Correct or incorrect uses outside the 7 categories were marked but not included in the analysis. It was, however, observed that the scores for 7-tense uses and the scores for all-tense uses did not differ more than one or two percentage points. The 30 subjects' overall scores (%) are shown in Table 4.1.

Table 4.1 Subjects' Overall Scores (%) of 7-tense Usage in Compositions

Subject No.	Level 1	Level 3	Level 5
1	88.73	83.76	89.93
2	86.34	91.88	86.97
3	83.62	85.94	86.31
4	91.94	88.81	87.93
5	74.89	88.89	86.55
6	93.63	84.77	91.91
7	85.43	92.30	87.50
8	87.68	88.60	87.00
9	88.54	92.75	82.58
10	83.42	81.94	91.49
$\bar{X}$	86.42	87.86	87.82

As can be seen from the table, there were little differences between the level means. An analysis of variance (BMDP2V —— ANOVA with repeated measures) confirmed the observation: there was no significant level effect ($p = 0.68$). In other words, a Null-Hypothesis was suggested concerning the subjects' development and use of the 7 tense-aspect categories. The results contradicted common sense and the researcher's expectation that there should be some development in the pupils across the levels.

To find out whether the scores had been mis-handled, the subjects' overall scores (based on the sub-scores) of the 7 tense-aspect categories were examined again by BMDP2V. Their scores (%) are shown in Table 4.2.

Table 4.2 Subjects' Scores (%) on each of the 7 tense-aspect Categories

LEV	TA1	TA2	TA3	TB1	TB2	TB3	TC
1	90.50	40.00	50.00	91.49	75.00	.00	87.40
1	85.02	100.00	50.00	89.25	50.00	.00	87.50
1	86.60	100.00	100.00	85.71	43.75	.00	100.00
1	95.95	50.00	33.33	93.97	66.67	.00	100.00
1	85.33	100.00	33.33	73.64	12.50	.00	71.43
1	93.26	100.00	50.00	94.85	100.00	.00	88.89
1	85.71	100.00	100.00	87.36	55.56	.00	87.50
1	90.59	100.00	66.67	87.00	71.43	.00	83.33
1	96.55	100.00	100.00	68.97	100.00	.00	83.33
1	93.98	33.33	50.00	80.68	44.44	.00	85.71
3	89.93	50.00	100.00	80.00	100.00	33.33	33.33
3	82.98	100.00	100.00	97.34	100.00	62.50	85.71
3	86.36	100.00	33.33	94.90	75.00	.00	60.00
3	93.46	100.00	50.00	90.37	55.56	75.00	57.14
3	90.58	81.25	83.33	93.52	33.33	62.50	42.86
3	91.11	100.00	22.22	81.82	.00	50.00	80.00
3	95.00	50.00	80.00	95.21	100.00	66.67	50.00
3	92.86	100.00	100.00	87.77	60.00	80.00	100.00
3	92.26	81.25	80.00	94.69	100.00	85.71	85.71
3	83.75	50.00	50.00	86.96	71.43	37.50	66.67
5	91.91	66.67	38.46	95.04	100.00	57.14	90.00
5	92.91	33.33	42.86	86.11	90.00	69.23	83.33
5	97.53	66.67	50.00	87.18	58.82	60.00	100.00
5	86.67	100.00	94.44	93.42	60.00	60.00	20.00
5	93.97	100.00	50.00	86.08	100.00	60.00	.00
5	98.89	100.00	50.00	95.71	100.00	46.15	80.00
5	94.79	75.31	46.67	88.13	90.91	69.23	100.00
5	94.66	50.00	52.63	82.41	100.00	100.00	100.00
5	92.47	83.33	34.48	87.58	75.00	54.55	100.00
5	97.32	77.78	37.50	93.10	83.33	71.43	74.81

Again, there was no significant level effect ($p > .05$). This added more weight to the Null-Hypothesis as regards the subjects' development of English tense and aspect.

To take the analysis one step further, a third ANOVA was performed on each tense/aspect across the three levels. The purpose was to see which tense/aspect had contributed to the overall non-significant level effect. The results of the 7 ANOVA's (1 for each tense/aspect) are shown in table 4.3.

Table 4.3 Results of ANOVA's on Individual Tense-Aspect

Tense/aspect	Sum of Squares	df	Mean Square	F
A1	102.05	2	51.03	3.168
A2	286.02	2	143.01	0.233
A3	2120.37	2	1060.19	1.721
B1	13.62	2	6.81	0.216
B2	2213.36	2	1106.68	1.644
B3	7002.42	2	3501.21	8.373*
C1	1286.44	2	643.22	0.780

*$p < .01$

As shown in Table 4.3, none of the tense-aspect categories, with the exceptin of B3 (the past perfect), showed significant development, thus confirming the findings of the first two analyses. Virtually all individual tense-aspect categories contributed to the overall non-significant results/development. B3 probably would have done so had it not been for the missing cases (i.e. non-use) and the two zeros. In fact, a t-test between Level 3 mean and Level 5 mean showed that the difference was not significant ($p = 0.331$).

If this study had focused on the development of the verb phrase in the basilang (Stauble and Schumann 1983; Klein 1986), the findings of 'non-development' would have been readily accepted. But we were dealing with L2 learners in a formal setting, receiving input regularly.

The results could not be more surprising.

What caused this apparent 'non-development'? The answer can be made in two parts: the first part is descriptive, and the second part evaluative.

The lack of significant development in the use of tense and aspect, as reflected in the composition analysis, was most likely due to the teaching-learning process: specifically, the 'guided method'. It must be emphasized that the following paragraph is just a description of the teaching-learning process.

At the time when the compositions for this first study were collected, Hong Kong was still under the audio-lingual, structural approach to L2 teaching. (Since then, Hong Kong has adopted the so-called 'communicative methodology'.) Teachers of English were then encouraged to help pupils form good, 'correct language habits' at the early stages of L2 development. In practice this would mean providing structures and vocabulary items for the pupils when doing spoken or written work. Generally speaking, both pupils and teachers 'welcome' this approach because it 'makes their lives easier': for pupils, easier to learn to speak/write in English; for English teachers, easier to mark/correct pupils' assignments, thus saving a lot of time. With teacher-guidance, pupils' writing appears readable and does not go far wrong. But as the pupils move up the academic ladder, and as they have acquired some linguistic competence, the amount of teacher-guidance decreases gradually, and the pupils are encouraged to explore with their limited knowledge. As the pupils move up to the School Certificate level (i.e. Secondary/Form 5), they are left alone entirely on their own resources.

The picture that has just been drawn is this: the teacher's help or guidance in language work is in inverse proportion to the pupil's proficiency. Teacher-guidance and language proficiency cancel out each other. If this account is accepted, it may provide some clues to the artefact or 'articificial pattern' of non-development

found in the composition data. The 'good show' at Level 1 was the work of the English teachers; the similar level of performance at L3 was partly the work of the teachers and partly due to the pupils' developing competence; the similar level of performance at Level 5 was entirely the work of the pupils.

As regards the evaluative part of the answer, it appears that, with the benefit of hindsight, the research should not have used class compositions as primary data. But it is important to note that before the pattern of non-development appeared, it had never occurred to the researcher that he would be studying 'non-development' in a developmental study. Furthermore, he was a little bit preoccupied with 'naturalistic data', given the difficulty of gathering spontaneous speech data from L2 learners in a mono-lingual or pseudo-bilingual environment. In a place like Hong Kong, the most naturalistic setting for pupils to use English is the classroom; hence their work there.

With the 'non-developmental' data, no further analysis was carried out: the lesson had been learned. A new way of collecting developmental data had to be designed once again, which would incorporate the experience gained in the first study.

CHAPTER FIVE

DESIGN OF THE SECOND STUDY

Introduction

Like the major objective of the first study, the main purpose of the second study was to investigate and describe the development and use of tense, aspect and some temporal adverbials in Cantonese learners of English across five secondary school levels. Specifically, the study attempts to explore the following questions (cf. section 1.3):

1) What do the developmental patterns look like when Cantonese learners of English in a formal-learning setting come to learn and use tense-aspect and time adverbials? Are there distinct developmental stages across the secondary spectrum?

2) Are there distinct areas of difficulty in the use of tense-aspect and time adverbials?

3) What are the patterns of error? Are they relatable to particular levels of proficiency or stages of learning?

4) Is there a role for the learners' mother tongue in their use of a second language? If at all, is it developmentally based?

5) Is the use of some communication strategies (e.g. message abandonment and message restructuring) developmentally based?

6) Does the development and use of tense-aspect and time adverbials exhibit systematicity and variability?

7) How does the linguistic evolution of some tense-aspect or time-adverbial function(s) proceed?

5.1. Subjects

The subjects in the present study were 150 secondary school pupils drawn from three co-educational Anglo-Chinese schools with similar background —— all three were managed and supervised by Christian missionaries having similar educational objectives, all government-subsidized, and all well-established. The schools were situated in different parts of Hong Kong: one in the New Territories (HFT), one in Kowloon (MSC), and one on the Hong Kong Island (KYC).

Fifty pupils were sampled from each school, 10 each in secondary levels 1, 2, 3, 4, and 5. (In the first study, only levels 1, 3, 5 were involved.) They were randomly selected from the class rosters at n-th interval. There were an equal number of boys and girls in each level. The average ages of the five levels were 12+ (Secondary 1) through 16+ (Secondary 5); they conformed to the average ages of the secondary school pupils in Hong Kong. Figure 5.1 summarizes the subject-characteristics:

Figure 5.1 Description of Subjects in the Second Study

Areas: Hong Kong Island, Kowloon, New Territories
Schools: 3 (HFT, KYC, MSC)

Secondary levels:	1	2	3	4	5
No. of subjects:	30	30	30	30	30
Age ranges:	12-13	13-14	14-15	15-16	16-17
Sex (M/F):	15/15	15/15	15/15	15/15	15/15

Mother tongue (L1): Chinese (Cantonese)

5.2. Construction of Elicitation Instruments

In finding ways to collect the pupils' IL data, the lesson from the first study was not forgotten. In the present study, no 'naturalistic' written data were used. Instead, two elicitation tasks were devised: one was letter-writing and the other fill-in-blanks with short discourse contexts. What follows describes the procedures in constructing the tests.

5.2.1. The Letter-Writing (LW) Task

To design elicitation tasks to find out the learner's IL, Corder's (1981:61) advice was heeded:

> To do this, constraints must be placed on the learner so that he is forced to make choices within a severely restricted area of his phonological, lexical, or syntactic competence. These constraints can be applied in two ways; as in ordinary tests, by limiting the range of possible choices, as in a closed item recognition test, or by restricting contextually the range of possible free choices as in an open-ended production test.

Apart from restricting the learner's possible choices, there were other considerations. The primary purpose of this study was to investigate and describe the learner's developmental use of temporal expressions, the task should, therefore, meet the following requirements:

a) it could be attempted by pupils from 5 different levels;

b) it would simulate a real communicative activity (since the focus was on the use);

c) it would focus on the learner's linguistic ability in expressing given temporal notions;

d) it would elicit/pinpoint use, non-use, and misuse of specific temporal expressions so that quantification could be performed;

e) it would provide a common base for comparing performance at different stages.

Consideration (a) would mean that the task should be within the subjects' experience and the vocabulary called for should not be too difficult. (c) and (d) reflected the methodological concern observed in Section 2.7., namely, the difficulty to decide or

establish what the intended meaning or function is when the (extra) linguistic context may not offer much help, leading to a failure to relate a given form to meaning/function. (b) required that the task would not be any kind of structural manipulation but would be modelled on language in use.

Two previous studies specifically contributed ideas to the design of the present study, namely, Taylor (1975) and Váradi (1983). Taylor used sentence translation to elicit syntactic overgeneralization and transfer data from elementary and intermediate Spanish learners of English. He listed two advantages: first, elicited translation forces the subject to attempt to produce a desired target structure; second, it makes sure that the subject understands the meaning of the structure to be translated. He considered a translation task to be 'the most efficient way to elicit specific structures from subjects' (p.76). Nevertheless, he worried that a translation task might induce transfer/interference.

In his classic study of message adjustment, Váradi adopted a written picture description task. He asked 2 groups (I, II) to compose a description based on a series of drawings. Group I was asked to write in English within 45 minutes; Group II was asked to describe in Hungarian within 30 minutes. After the compositions were collected, both groups were asked to describe again, this time in the other language. Some days later, they were asked to translate the 2 descriptions from one language into the other. Váradi's design may be summarily presented in Figure 5.2.

Figure 5.2 Varadi's Study Design

	Group I		Group II	
Descriptions:	English ; Hungarian		Hungarian ; English	
Translations:	Hungarian	English	English	Hungarian

Váradi spelt out the rationale of the design as follows: first, the Hungarian description would reflect the 'optimal meaning' the subject wished to convey; the English description would represent the 'adjusted message'. The English translation of the Hungarian description should show adjustment effect, similar to the English description. (And this was confirmed in the study.); secondly,

> the task of describing a picture series was intended to furnish a fairly rigid guideline stringently controlling improvisation. At the same time, since the drawings did not constitute an overt stimulus, the technique allowed for individual variation.
> (Váradi 1983:88)

Váradi was concerned with two things. The first was a rigid procedure forcing the subjects to convey a certain set of meanings ('optimal meanings'/'intended meanings'). Second, the difference between the Hungarian and English description/translation could be attributable to meaning adjustment. Since the English description and the English translation (of the Hungarian description) showed basically the same characteristics, the point was really between the English version and the Hungarian version.

Both Taylor (1975) and Váradi (1983) used L1 as the reference point of departure against which L2/IL performance was judged; and both imposed contraints on the subjects, restricting the range of possible choice. Their views and Corder's (1981) converged.

Incorporating the requirements of the present study and the ideas suggested in Corder (1981), Taylor (1975) and Váradi (1983), an elicitation task in the form of 'content-guided' letter writing (LW) was developed. There were two built-in features in the task.

The first built-in feature was that the discourse format and the desired content appeared in the form of instructions, which specified what ideas were to be included in the letter. With the content laid down for the subjects, they did not have to worry about what to write or how to organise the ideas. All they had to worry about was <u>how to express the semantic content or intended</u>

message in English, which was the primary concern of the researcher.

The specified content included at least two contexts for each of the tense/aspect categories under study as well as contexts for some temporal adverbials; it served to constrain the subjects as regards what tenses/aspects or adverbials they had to produce/include. In this case, 'the question of how close the learner comes to communicating what he wants to say', i.e. what he is required to say, can be studied at close range. (Váradi 1983:80)

The same format and the same set of ideas would provide a common base for comparing the linguistic performance of the pupils at different levels.

The second built-in feature was that the task instructions were given in Chinese (cf. Appendix 4) and the English translation of the instructions is reproduced in Table 5.3. (see next page)

Chinese instructions were used to ensure that the subjects, particularly those from the Lower Forms, would know exactly the content they were going to express. More importantly, this ensured that there would be no English expressions given, which might be exploited by the subjects, thus forcing them to rely exclusively on their own linguistic resources. A few expressions had English glosses in brackets (mostly nominal phrases) to help the Lower Form pupils.

The specified content of the letter would require approximately a minimum of 150-200 words, the length that could, hopefully, be handled by Form One subjects. Higher level subjects were allowed for individual variation, provided that they had covered the basic ideas specified. This was indicated in the letter instructions: 'You must include in the letter all the points listed in the content-framework below. You may, however, expand the contents.'

Table 5.3 An English Translation of the Composition Instructions in Chinese (cf. Appendix 4)

English composition

A. Topic: Write a letter in English to your primary school friend, Paul(ine), who is studying in another secondary school in Hong Kong. You have not seen him/her for a long time.

B. Instructions: You must include in the letter all the points listed in the Content-framework below. You may, however, expand the contents.

C. Content-framework (divided into 4 paragraphs)

Paragraph 1: mention you haven't seen each other for a long time; enquire about how (s)he is getting on.

Paragraph 2: have been studying in XXX Secondary School since leaving the primary school;

some information about your classmates;

your 1st term results.

Paragraph 3: mentioned that when you were returning home from school two days ago, you met another primary school friend, Joseph(ine), who you hadn't seen for eight months;

when you were studying in Primary Six, Joseph(ine) helped you many times with your school work (please give examples);

before you knew Joseph(ine), your school work had been unsatisfactory. But after you two became friends, (s)he helped you to get good results;

if you hadn't met Joseph(ine), you might not have had the opportunity for continuing secondary education.

Paragraph 4: mention you are revising/preparing for a test next week;

have invited Joseph(ine) and some other former classmates to come to your house next Saturday afternoon at 2 o'clock, and afterwards all of you will go to see a film;

ask Paul(ine) if (s)he can come on that day, and hope (s)he will give you a reply as soon as possible.

Time allowed for the writing task was 80 full minutes, and the lengths suggested for different levels are shown below. These were also the suggested lengths laid down in the English Syllabus for Secondary Schools:

Form 1 : between 150 and 200 words
Form 2 : between 200 and 250 words
Form 3 : between 250 and 300 words
Form 4 : between 300 and 350 words
Form 5 : between 350 and 400 words

5.2.2. The Fill-in-Blank (FIB) Task

The main objective of the fill-in-blank (FIB) task was four-fold: (i) to provide additional descriptive data on the pupils' IL developmental patterns in the seven tense/aspect categories; (ii) to examine empirically some of the confusion areas established by previous studies reviewed in section 2.4.; (iii) to study the magnitude of response variation in some specific tense-aspect contexts; and to study the nature of some tense-aspect errors committed by Cantonese learners of English.

The test consisted of 50 items (see Appendix 5): 49 of them were real test items; item 50 was a dummy used to round off the odd number 49. There were 7 tense/aspect groups, each with 7 items. The distribution of the items is shown in Table 5.4 below:

Table 5.4 Distribution of Items in Tense/Aspect Categories

Simple Present	(A1)	1	8	16	23	28	35	45
Present Progressive	(A2)	4	9	18	33	38	42	48
Present Perfect	(A3)	5	12	22	31	37	41	46
Simple Past	(B1)	2	6	15	19	26	36	47
Past Progressive	(B2)	7	11	17	24	39	43	49
Past Perfect	(B3)	10	14	20	25	30	34	40
Simple Future	(C1)	3	13	21	27	29	32	44

Two considerations contributed to the construction of the FIB items. First, since the focus was on the development and use of tense and aspect, the other grammatical and lexical aspects were made as simple as possible. And the verbs chosen for the FIB items were largely within the pupils' lexical knowledge as prescribed by the official English syllabus. Three terms which were thought to be difficult for the Lower Form pupils had Chinese glosses. They were 'personality', 'boring', and 'apply'.

Secondly, a proper interpretation or use of tense/aspect depends on the co-occurring temporal context, which may appear in the form of temporal adverbial within the sentence, or may be derived from other sentences (inter-sentential or discourse context). Thus, all test items were contextualized,

e.g. (12) [At a party]
John: Excuse me. I don't think we (meet) _____before? My name is John Wong.
Paul: How do you do. I'm Paul Chan.

(10) When I first entered school, I could not speak a word of English. I (never study) _____ it before.

(26-29) Dear John,
What a surprise! I (be) _____ glad to receive your letter and (be) _____ pleased to meet you on 19th March at the restaurant. Please wait for me if I (be) _____ a little late because I have an important meeting in the morning, but I (try) _____ my best to be there at 2:00 p.m. ...

(48) Anne: How's your brother Paul?
Mary: Very well, thank you.
Anne: Where is he?
Mary: He (stay) _____ with Uncle Tom in the New Territories at the moment.

About 70% of the test items were pitched in either conversational or letter-writing contexts, and the rest were like Item 10. It was reasoned that since the great majority of items simulated real communicative activities, they would be able to reflect the pupils' relative ability in the use of tense and aspect. As will be discussed later, there were, however, a few flawed items which could accommodate more than one possibility (cf. 5.4.3.).

The time allowed for the FIB task was 40 full minutes.

5.3. Test Administration and Data Collection

All subjects performed the two task in sequence: letter writing (80 full mins.) and then fill-in-blank (40 full mins.).

There were three data collection/testing sessions, one for each school. It should be reported that the physical setting for data collection in each school was different. With the New Territories school (HFT), the chosen subjects were withdrawn from class and assembled at a large science laboratory, where the testing session took place. It was personally administered by the researcher with the assistance of two school teachers.

In the Kowloon school (MSC), the school provided a large auditorium for the testing session. Again, the chosen subjects were withdrawn from normal classes. There were two separate seatings: one for Forms 1, 2 and 3; another for Forms 4 and 5. They were both administered by the researcher, with the assistance of one school teacher.

With the school on the Hong Kong Island (KYC), space availability was a problem because they had a 'floating class' system. The school principal and the English head-teacher solved the problem by asking all classes to take the same tests, using their weekly composition

periods and an English Usage class. The tests would replace their bi-weekly composition assignment and one of their General English exercises. Since the researcher could not be physically present to supervise the testing, the teachers involved were briefed on the testing procedure; they were requested to make sure that the order of the two tasks be observed and that pupils follow the instructions. Eventually, the data were successfully collected, thanks to the utmost cooperation of the teachers at KYC.

In each testing session, be it under the researcher's or class-teacher's supervision, the same procedure was uniformly followed. At the beginning of the session, the subjects/pupils were told in Cantonese that the two tasks were not school/class tests, but were meant for research into secondary pupils' use of English, so that they need not worry about their grades because of these tests. Then the specific instructions were read out (the following is the English translation equivalent):

> You are going to perform two tasks: first, to write a letter to your former classmate/schoolmate; then to fill 50 blanks. Now, the letter-writing task first. In writing this letter, you must follow the instructions and content-guideline exactly. You have 80 full minutes to finish the first task. When time is up, I'll ask you to stop, and you must stop there. Do you have any questions? [Pause and wait, and answer if any.] Now you may begin. You have 80 minutes. Read the instructions carefully.

After the compositions were collected, the pupils were each given a fill-in-blank booklet, and the specific instructions were read out:

> The second exercise is a fill-in-blank task. Read each item carefully, and use the verb in brackets to provide a tense form that best completes the sentence/utterance. Let's look at the examples. [Go through the 3 examples with the pupils.] Do you have any questions? [Pause and wait] Now you may begin. You have 40 minutes. If there is time left, check your answers.

Since the pupils at KYC did not perform the two tasks in one seating, the introductory and transitional wording was slightly adjusted; other than this, the instructions remained substantially the same.

One MSC subject from Form 1 completed less than half of the FIB task. This subject was subsequently removed from data processing, leaving level 1 with 29 subjects for FIB. Two HFT subjects from Form 5 asked for permission, and were granted reluctantly, to leave the testing session on medical grounds, after they had completed the letter writing task. This reduced the number of subjects at Level 5 to 28 for FIB. Table 5.4 shows the final number of subjects whose data were processed.

Table 5.4 Distribution of Subjects in LW and FIB

	L1	L2	L3	L4	L5
Letter writing (LW)	30	30	30	30	30
Fill-in-blank (FIB)	29	30	30	30	28

5.4. Data Processing

Three types of data were processed: (i) tense and aspect and (ii) time adverbials in the composition scripts, and (iii) tense and aspect in the FIB task. In addition, data for 'message abandonment', 'message restructuring' and 'language transfer' were derived from the primary data (i) and (ii).

5.4.1. Tense-Aspect Data (LW)

A marking framework had to be developed to process the tense and aspect data in the compositions. The main concern was: what constituted an (in)appropriate/(un)acceptable/(in)correct tense or aspect usage? A few criteria had to be established to save numberous indecisions. Consider the following sentences, particularly the underlined verbals:

a) My father usually begin work at 9 o'clock in the morning and finish his work at 10 p.m.

b) There were some people got hurt in the accident.

c) There were many casualties. Some had seriously wounded.

d) When I was asked to went to the consultation room, I felt nervous.

e) Rain comes from clouds. Clouds made of water.

f) Since we left the primary school. I went to Tak Wai College to study.

g) Two days ago, I met Joseph. Did you remember who is Joseph? I have not see him about eight months.

Some researchers (e.g. Scott and Tucker 1974:79) and some teachers of English often mistakenly regard the third-person -s as a present tense marker. In this study, -s is considered a marker for 'person'. So begin and finish in (a) are not considered tense/aspect errors.

Got hurt in (b) is also not considered a tense/aspect error; rather it is a constructional error with subject omission (cf. 2.3.7.).

Had (seriously) wounded is a well-formed verb phrase but in non-target-like, inappropriate use. Voice apart, the required verb form should be the non-aspectual, simple past 'were wounded'. So it is a tense/aspect error.

Some would argue that to went in (d) should be considered a tense error, since a tensed form is used in an infinitive position —— the learner who produced it did not know the limit of grammar. This point is well appreciated. But in this study, only finite verb phrases are/were considered. For this reason, a verbal like looked in 'John swam to the red flag because he wanted everybody looked at him' would also be excluded from analysis.

Made in (e) is regarded as a tense error. We cannot assume that the pupil producing it probably forgot to insert are, and regard it as 'voice' formation error. If this is accepted as a voice formation error and not as a tense error, then the door will be wide open to accept sentences of the following kinds as having 'voice' problems.

We are got on well with each other.

My work was greatly improved. (intending to say has greatly improved)

We have not been seen each other for some time.

In this study, such verb phrases are considered tense or aspect errors.

Putting aside the punctuation error (the full-stop between school and I), we can identify two possible sources of error in (f). The first possibility is that the subordinator since is wrong and should be replaced by after. This then is regarded as a time adverbial problem, i.e. the since-clause vs. the after-clause; the second verb went has nothing wrong. The other possibility is to consider the adverbial clause correct, and treat the verb went as a tense-aspect error. This is the kind of indecision problem Bialystok (1983b) experienced —— she could not map some tense forms to their functions because the contexts were ambiguous, or the writers' intentions were not known. In this study, problems of this kind can be dealt with by referring to the intended message, the guided content. As regards (f), it is most likely a tense-aspect problem. There appears to be some message adjustment; this has made the resultant expression slightly difficult to interpret.

Did (you) remember in (g) is a tense error, on the basis of our pragmatic knowledge. Have not see is an ill-formed tense-aspect error (Past Perfect).

Another consideration concerned the treatment of omission of (part of) the verb. It was decided that the omission of the whole finite verb phrase or part of the finite verb which carries tense/aspect would constitute an error,

e.g. h) Some people were killed. The wounded taken to hospital.

i) Now I prepare for next week's exam.

j) My academic results ____ very unsatisfactory.

Also, partial omission of a modal verb phrase would constitute an error:

k) I believe you must ____ well.

l) You will ____ very good.

To summarize, a finite verb phrase was considered a correct or appropriate tense-aspect usage if it had a complete internal structure of tense-aspect and satisfied the contextual, the semantic and the pragmatic appropriacy criteria.

A complete, well-formed verb phrase in non-target-like use or contextually/pragmatically inappropriate was considered a tense-aspect error. A pseudo-voice formation or omission of (part of) the finite verb phrase (but excluding ellipsis in coordination) was likewise considered a tense-aspect error.[1]

When the above criteria failed to determine or establish the (in)correctness/(in)appropriacy of tense-aspect use, the 'guided content' would be appealed to. And when all the above had failed, the subject would be given the benefit of doubt.

With this frame of reference, the 150 compositions were marked by the researcher. A sample copy of a marked composition can be found in Appendix 6. The results of each composition were transposed onto a score-sheet. A copy of score-sheet for the letter writing task can be found in Appendix 7.

5.4.2. Time Adverbial Data

The processing and coding of time adverbials used in the letter writing task was, comparatively speaking, easier than the processing of tense and aspect. The first step was to examine each script and copy all sentences containing time adverbials onto a work sheet. (Tense and aspect marking had been done on the original scripts; further marking might create confusion.) The second step was to indicate their structural properties: clausal, phrasal, or singleton adverbials. The third step was to mark the correctness of these adverbials. A sample copy of the analysis work-sheet can be found in Appendix 8. The results of the adverbials processing were transposed onto score-sheets (see Appendix 9).

5.4.3. Tense-Aspect Data (FIB)

In processing the fill-in-blank (FIB) items, the same criteria used to mark tense and aspect usage in the compositions were adopted. One point was awarded to each acceptable answer. In a few cases, alternative answers produced by the subjects were acceptable. For example, item 1 was originally intended to be a simple present (A1) item:

(1) Mr. Wong moved to Wan Chai last month.
He (not live) _____ here any more.

The expected answer was does not live. However, a few subjects provided is not living for the blank, which was acceptable. A point had to be awarded. This measure did not affect the overall scores for blank-filling. It would, however, affect the specific scores for the simple present group, because it would distort our assessment of the subjects' performance in this area if is not living was accepted as a substitute for does not live. It was therefore decided to remove such alternatives from specific tense and aspect analyses, if their numbers were relatively small. If the alternative responses far exceeded the intended response, the whole item would be removed/ excluded from the relevant tense or aspect analysis. There were altogether four such items: No.8 (the Simple Present Group); 14 (the Past Perfect Group); 24 and 49 (the Past Progressive Group). Further comments will be made when coming to specific analyses.

5.4.4. Message Abandonment/Restructuring Data

It was pointed out in Section 2.7.2 that to study 'avoidance'/ 'abandonment' or 'restructuring', one important precondition is that the researcher should know in advance, or can ascertain with confidence, what the learner's original, intended message is. In the present study, the difficulty in establishing the learner's intended message was overcome by using a 'content-guided' letter writing task (cf. 5.2.1). The specified content included at least two contexts for the occurence of each of the tense-aspect categories under study.

The data for the study of message abandonment and message restructuring were obtained by examining the subjects' performance in 14 contexts (two built-in contexts times seven categories). The contexts from which the performance data were processed are listed below:

The 14 contexts (cf. Table 5.3)

1. haven't seen each other for a long time (A3)
2. how (s)he is getting on (A2)
3. information about classmates (A1)
4. 1st term results (B1)
5. when I was going/returning home from school two days ago... (B2)
6. a former classmate who(m) I had not seen for eight months (B3)
7. when we were studying in Primary Six (B2)
8. my school work had been unsatisfactory (B3)
9. (s)he helped me to get good results (B1)
10. I am revising/preparing for a test (A2)
11. I have invited Josephine and some other classmates to come to my house next Saturday (A3)
12. all of us will then go to see a movie (C1)

13-4. hope that you will reply as soon as possible (A1, C1).

In the present study, the key element in each context is, of course, the verb phrase, which serves as the focus of the message, together with other elements that make up the message.

5.4.5. Language Transfer Data (LW)

The language transfer data were gathered from four time-adverbial contexts. They are:

1. haven't seen you for a long time

2. Two days ago when I was returning home from school (or 'when I was ... two days ago')

3. I met a Primary classmate who(m) I had not seen for eight months

4. I've invited Joseph(ine) and some other former classmates to come to my house next Saturday afternoon at 2 (o'clock)

These four time adverbial contexts were chosen because the Cantonese counterparts have different distributional/positional characteristics, and therefore offer ideal situations for examining the presence or absence of language transfer or mother-tongue influence. Also, (1), (3) and (4) provided data for separate developmental analyses of tense-aspect and T-adverbials. The Cantonese adverbial counterparts are given below in (a), (b), (c) and (d) respectively.

a) hou noi mou gin mou gin nei hou noi

'very long time no(t) see' 'no(t) see (you) very long time'
(haven't seen you for a long time)

b) chin leung yʌt leung yʌt chin

'ago two day' 'two day ago'
(two days ago)

c) yu dou yʌt go bat go yut mou gin min ge siu hok tung hok

'met a CL eight CL month no(t) see face Poss Primary classmate'
(met a Primary classmate who(m) I had not seen for eight months)

d) ngo cheng jo Joseph tung mai gei go siu hok tung hok heung ha sing kei luk ha jau leung dim lai ngo uk kei wui min

'I invite PERF Joseph and some primary classmates on next Saturday afternoon two o'clock come my house meet'

(I've invited Joseph and some primary classmates to come and meet at my house next Saturday afternoon at two (o'clock))

In (a), the Cantonese durative adverbial hou noi ('very long time') may be pre-verbal or post-verbal. In English, the post-verbal position is the norm.

In (b), chin leung y^t, the modifier chin (which is a deictic marker in this context and can be paraphrased as 'ago') can precede or follow the noun head. In English, ago can only follow the noun-head.

In (c), the Cantonese time-frequency adverbial bat go yut ('eight months') is embedded within a modifying/relative clause. And a Cantonese relative clause is always pre-nominal, whereas an English relative clause is always post-nominal (i.e. after the noun-head). In other words, the Cantonese adverbial will precede siu hok tung hok ('Primary classmates').

Finally, in (d), the long, hierarchically inclusive time-when adverbial must, in Cantonese, come before the verb lai ('come') it modifies [cf. 3.7.5]. It must be pointed out that the adverbial with future reference may also be accepted in sentence-initial position, despite the fact that it includes cheng jo ('have invited') under its scope —— logically impossible, but communicatively acceptable. In English, this adverbial complex almost always comes after the verb 'come', and an S-initial position is always ruled out in such a context (i.e. next Saturday, I have invited ....)

Identification of instances of language transfer was made by examining the subjects' performance in these four contexts. Only structures or forms which were uniquely paralleled by Cantonese constructions or forms were recognized as transfer instances. Consider the following examples:

a) two days before

b) before two days

c) two days after evening

d) after two days

e) next Saturday two o'clock I call Josephine ...

f) I call Joseph and several old classmates on Saturday 2:00p.m. come to my home ...

g) I have already meet Josephine and the other classmates going to my home at two o'clock in the afternoon in next week ...

h) after school I go home, no see is eight month classmate Josephine

i) In 3rd March 1982, seen a eight month no seen old friend Josephine

j) I not see Joseph at eight month.

Example (a) is not a transfer. The subject just mixed up ago and before. Example (b) is considered a transfer because of its pre-noun position. (d) is, likewise, a transfer. Here the subject got confused with the relational pair before and after. (c) is a genuine case of transfer. After was, again, confused with before. The whole phrase is the literal translation of a Cantonese expression.

(e) and (f) are paralleled by the positional characteristics of the Cantonese counterparts, especially (f).

(g) and (j) do not show any sign of transfer, despite a prepositional error in each case.

(h) and (i) are both considered cases of transfer, exhibiting a Cantonese positional characteristic, i.e. a time adverbial embedded in a relative clause comes before the noun head the clause modifies.

5.5. Concluding Remarks

It is important to emphasize at this point that since the primary interest and focus of the present study is on the development and use of tense-aspect and time adverbial in Cantonese learners of English as learning groups across the five secondary school levels, subsequent analyses will reflect this biased interest in group performance across levels. Attention will be paid to individuals' performance only if it helps to illuminate and clarify group performance.

NOTES

1. The marking criteria were derived largely from the judgments of eight English native speakers (from the Linguistics Department) and the researcher on 22 'problematic' sentences involving 3rd person singular 's' omission, partial/full VP-omissions, and various kinds of VP-misformations. The judges were asked to read the 'problematic' sentences and consider whether or not they were instances of tense-aspect errors. Some answers required just a 'yes' or 'no'; a few also required a brief explanation on the judgment made. The correlation between the researcher's and the native speakers' judgments was 0.772.

CHAPTER SIX

ANALYSES AND RESULTS

Introduction

This relatively long chapter presents results of the various analyses of the tense-aspect and time-adverbial data, analyses geared specifically to the research questions and hypotheses formulated in Chapter One and Chapter Five. The presentation is divided into three main parts, each part could be conceived of as a sub-chapter.

Part I: General Analyses (pp.166-222)

Part I consists of three groups of analyses. They are:

Section 6.1., dealing with tense-aspect data in the letter-writing task (LW).

Section 6.2., dealing with tense-aspect data in the fill-in-blank task (FIB).

Section 6.4., dealing with time-adverbial data in the letter-writing (LW).

All Part I analyses were attempts to provide information for Questions 1, 2 and 6 raised, and to test the first three hypotheses formulated, in section 1.3. [The relevant questions and hypotheses will be reproduced when we come to specific parts of analyses.]

Part II: Five Specific Analyses (pp.223-264)

Part II consists of five specific analyses, all based on the tense-aspect and time-adverbial data in the letter-writing task. They are:

Section 6.6., 'Verb-phrase Omission'.

Section 6.7., 'Verb-phrase Misformation'.

Section 6.8., 'Message Abandonment'.

Section 6.9., 'Message Restructuring'.

Section 6.10, 'Language Transfer'.

All part II analyses attempted to provide information for Questions 3, 4 and 5 asked, and to test Hypotheses 4, 5, and 6 formulated, in section 1.3.

Part III: Four Qualitative (Error) Analyses (pp.265-304)

Part III consists of four qualitative analyses of errors from both the letter-writing (LW) and the fill-in-blank(FIB) task. They are:

Section 6.12., (Non-)obligatory Context Analysis (LW).

Section 6.13., Response Analysis (FIB).

Section 6.14., Linguistic Development of the Present Perfect (LW).

Section 6.16., Linguistic Development of Two Durative Adverbials (LW).

The analyses in Part III attempted to explore Questions 6 and 7 raised in section 1.3.

Part I: General Analyses (pp.166-222)

Part I presents results of three groups of analyses aimed at answering the questions and testing the hypotheses below:

Questions:

1. What do the developmental patterns look like when Cantonese learners of English in a formal setting come to learn and use tense-aspect and time-adverbials? Are there distinct developmental stages across the secondary spectrum?

2. Are there distinct areas of difficulty in the use of tense-aspect and time adverbials?

Hypotheses:

H.1. There is no difference between the performance means of the subjects of the five secondary levels, regarding the use of tense-aspect and of time adverbials.

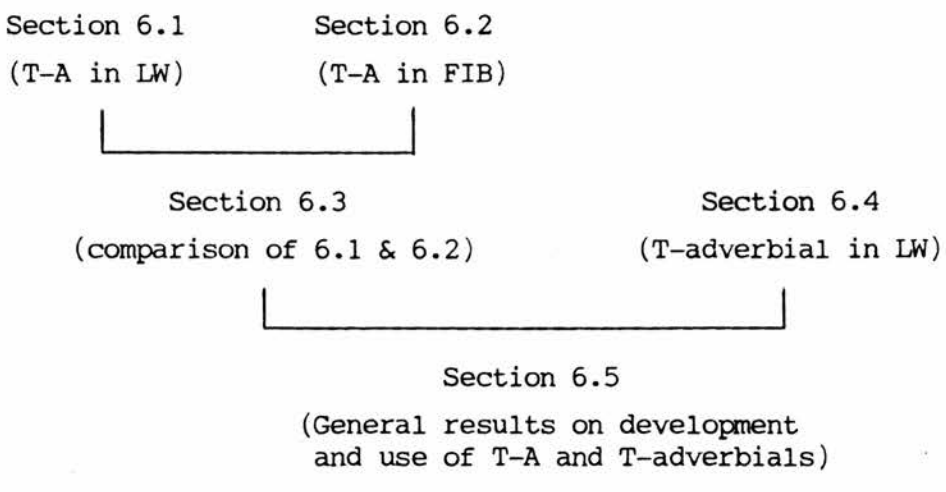
H.2. There are no distinct developmental stages across the secondary spectrum.

H.3. There are no distinct areas of difficulty in the use of tense-aspect.

Before presenting the results, it is important to note a few abbreviations frequently employed in this chapter for the sake of convenience and space-saving. For example, all tense-aspect categories in the Present group use the capital letter'A'; categories in the Past group use the capital letter 'B'; the Future is represented by the capital letter 'C'. The numbers 1, 2, and 3 represent the Simple, the Progressive, and the Perfect respectively. The following lists the most frequently used abbreviations in Chapter Six:

A1	the Simple Present
A2	the Present Progressive
A3	the Present Perfect
B1	the Simple Past
B2	the Past Progressive
B3	the Past Perfect
C1	the Simple Future
FIB	the Fill-in-blank task
LW	the letter-writing task
L1-L5	Level 1 - Level 5
T-A	Tense-aspect
T-Adverbial	Time Adverbial

Finally, the Part I result presentations are organized as follows:



6.1. Tense-Aspect in Letter Writing (LW)

The subjects' (N=150) performance scores (%) were calculated by tallying every (in)correct use of the 7 tense-aspect categories, using the same scoring procedure described in section 4.2. The results were then transposed onto score-sheets. The subjects' performance scores (%) for the seven tense-aspect categories can be found in Appendix 10. [The 7 T-A's are: the Simple Present (A1), the Present Progressive (A2), the Present Perfect (A3), the Simple Past (B1), the Past Progressive (B2), the Past Perfect (B3), and the Simple Future (C1)]

6.1.1. Overall Tense-Aspect Development (LW)

In this subsection, we study the overall developmental pattern in tense-aspect use in the context of the letter-writing task. It will be recalled that in Chapter Four, a Null Hypothesis was suggested; it has been incorporated in the second study as Hypothesis 1, which states:

H.1. There is no difference between the performance means of the subjects of the five secondary levels in their use of tense-aspect and time adverbials.

Based on the subjects' performance scores (%) on the seven tense-aspect (T-A) categories, the overall performance means (%) for the five levels were calculated. The results of the calculation are presented in Table 6.1.

Table 6.1 Level $\bar{X}$'s for T-A Performance in LW

	L1	L2	L3	L4	L5
Level $\bar{X}$	22.9	31.6	48.7	50.7	67.4
Tensed VPs	(22.3)	(26.1)	(29.1)	(35.4)	(40.6)

Each bracketted figure indicates the average number of tensed VPs produced per pupil at each level.

To find out the developmental significance of these means, an analysis of variance (SPSSX 1.0) was performed, and the results indicated that the grade level effect was highly significant ($p < .001$).

In the light of the significant results, the Null Hypothesis is rejected.

To explore further the exact nature of the progression, t-tests of significance (from the same program: SPSSX 1.0) between pairs of level means were performed, and the results are presented in Table 6.2.

Table 6.2 t-tests of Significance Between Level $\bar{X}$'s in LW

Level (n)	$\bar{X}$	S	t	df	1-tail p
1 (30)	22.9	9.54			
			-2.34	58	.012
2 (30)	31.6	18.03			
			-3.28	58	.001
3 (30)	48.7	22.12			
			-0.38	58	.352
4 (30)	50.7	15.95			
			-4.11	58	.000
5 (30)	67.4	15.63			

The results of the t-tests indicated that there was no significant difference between L3 and L4 mean. The other pairs were all significant. In terms of T-A development, there was no significant progress between L3 and L4. Highly significant development in T-A

use occurred between Levels 2 and 3, and between Levels 4 and 5, especially the latter period.[1]

6.1.2. Development of Specific T-A Categories in LW

Based on the subjects' performance on each of the 7 T-A categories, the level means for each category were computed across the 5 academic levels. The results of the computation are presented in Table 6.3.

Table 6.3 Level $\bar{X}$'s for the 7 Tense-aspect Categories

T-A	L1	L2	L3	L4	L5
A1	77.3	78.8	86.8	90.7	94.1
A2	6.7	18.0	50.9	63.1	77.2
A3	19.7	19.0	42.4	40.7	55.4
B1	34.5	41.8	54.8	52.5	67.6
B2	0.0	25.0	26.3	32.4	57.8
B3	2.0	1.9	16.1	11.7	30.6
C1	17.9	33.9	55.1	57.6	83.8

The level means in Table 6.3 indicate that there was development over time in each of the 7 T-A categories, although some appeared to be faster or more marked than others. For example, the greatest developmental gain is found in the Present Progressive (A2), with a difference of 70.5 between Levels 1 & 5. The category that had the least gain is the Simple Present (A1), with a difference of just 16.8% across the five levels.

Analyses of variance (SPSSX 1.0) were performed on the 7 categories across the five levels. The results, which confirmed the developmental trend, are presented in Table 6.4.

Table 6.4 Results of ANOVA's on 7 T-A Categories

T-A	Sum of Squares	df	$\bar{X}^2$	F
A1	6408.71	4	1602.18	5.52*
A2	102239.95	4	25559.99	20.67*
A3	29979.77	4	7494.94	7.17*
B1	19419.41	4	4854.85	7.92*
B2	37543.86	4	9385.96	6.65*
B3	16743.77	4	4185.94	8.68*
C1	69428.81	4	17357.20	13.93*

* $p < .001$

As can be seen from the ANOVA results, there was a highly significant level effect ($p < .001$) for each of the 7 T-A categories. To explore further the nature of progression in the subjects' use of each T-A category, t-tests of significance (SPSSX 1.0) between level means for each category were performed. Table 6.5 summarizes the results of the t-tests. The four decimal numbers in each row represent p-values.

Table 6.5 Summary of t-tests Between Level $\bar{X}$'s on each of the 7 Tense-aspect Categories (LW)

	Levels 1-2	2-3	3-4	4-5
T-A				
A1	.401	.055	.172	.080
A2	.063	.003*	.151	.081
A3	.465	.008*	.430	.045*
B1	.167	.033*	.351	.007*
B2	.001*	.467	.348	.063
B3	.487	.008*	.247	.004*
C1	.056	.032*	.405	.012*

All values are in 1-tail probability

*significant at .05 level

As is clear from Table 6.5, the tense-aspect categories did not develop uniformly. It is interesting to note, for example, that the Simple Present (A1) did not show any significant between-level development, although, cumulatively, the development was significant (as indicated by the ANOVA result).

It should be pointed out that the significant difference between Levels 1 & 2 for the Past Progressive (B2) was due to a zero score at Level 1. Recall that in Table 6.2, the difference between the overall means for Levels 1 & 2 was significant. But the breakdown in Table 6.5 shows that the period between L1 and L2 was, in fact, one without significant development for most of the 7 T-A categories.

We also noted earlier in connection with Table 6.2 that the most active periods for T-A development occurred between Levels 2 and 3, and between Levels 4 and 5. The individual T-A categories that showed a similar pattern were the Present Perfect (A3), the Simple Past (B1), the Past Perfect (B3), and the Simple Future (C1).

To summarize this sub-section (6.1.2), we may observe that the periods for the subjects' significant growth and development in T-A appeared to be between Levels 2 and 3, and between Levels 4 and 5. The periods that showed insignificant development in individual T-A's was between Levels 3 and 4, and to some extent between Levels 1 and 2.[1]

Cumulatively, there was significant development across the secondary spectrum (as indicated by the ANOVA results), but the magnitude and rate of development varied with individual T-A's. (More will be said in sub-section 6.1.4).

The total picture of the development of these 7 T-A's is graphically represented in Figure 6.1 (based on Table 6.3).

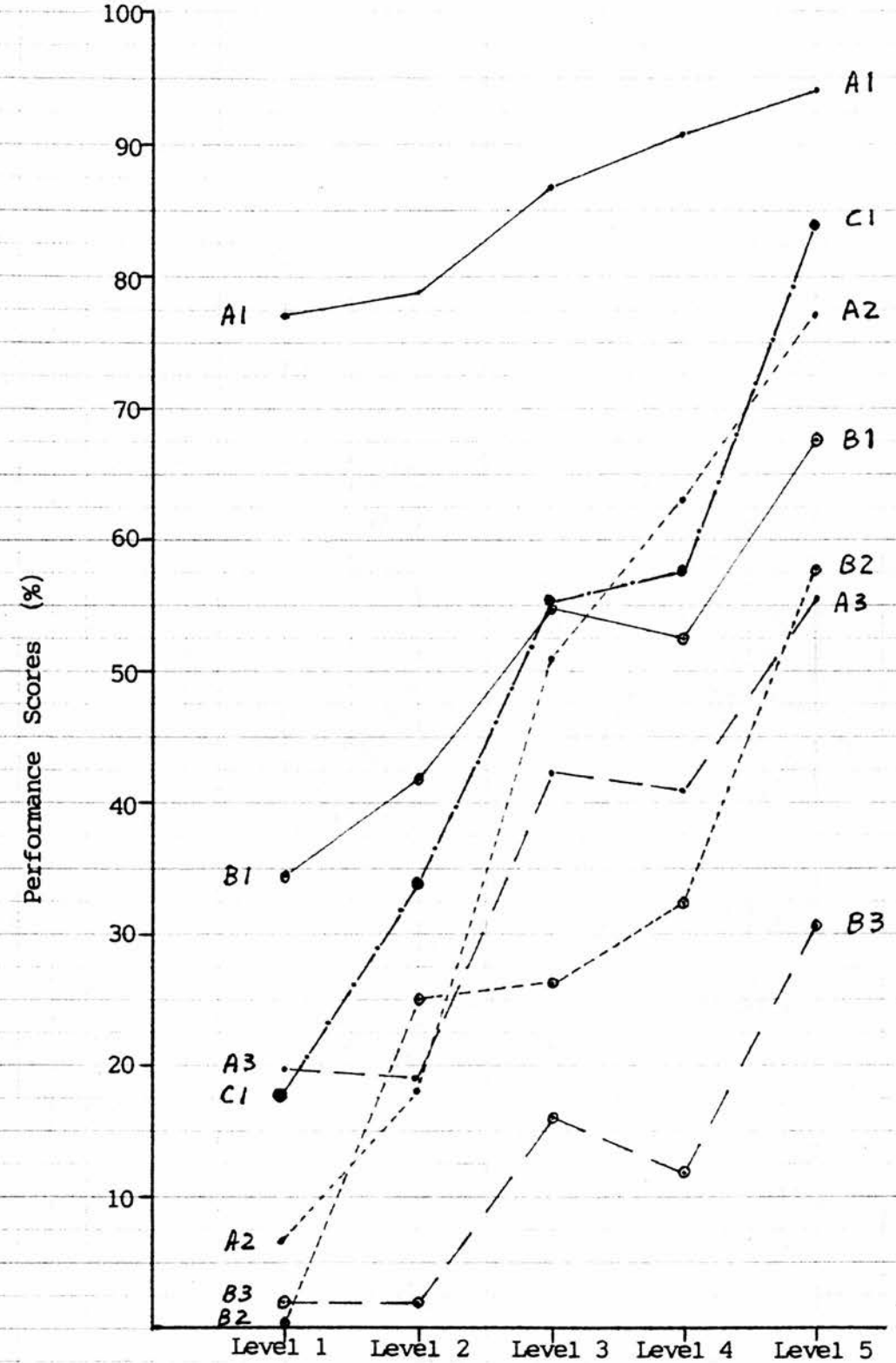


Figure 6.1 Level $\bar{X}$'s for the 7 T-A Categories in LW

Two additional points may be made. The first interesting point to note in Figure 6.1 is that, as far as the writing task is concerned, the Simple Present (A1) was consistently the easiest tense to use across the five secondary levels (even the lowest Level 1 had 77.3%), and the Past Perfect (B3) the most difficult. The ease/difficulty of other T-A categories interacted with levels in complicated ways.[2] To reduce the complexity of the picture, all the level means (cf. Table 6.3) for each T-A category were summed up and arranged in order of 'difficulty', as in Table 6.6 below:

Table 6.6 Letter-writing: Rank Order of 7 T-A's

Rank	T-A	Overall performance (%)
1	A1	85.5
2	B1	50.2
3	C1	49.7
4	A2	43.0
5	A3	35.6
6	B2	24.6
7	B3	12.5

Now we can see more clearly that the Simple Present was immediately followed by the Simple Past and the Simple Future. The next came the Present Progressive and the Present Perfect, and finally the Past Progressive and the Past Perfective.[3]

We shall return to Table 6.6 shortly in section 6.1.3.

The second point to note in Figure 6.1 is that, despite their differential scores, the Present Perfect (A3) and the Past Perfect (B3) both had very similar patterns of development: an initial, slight drop at Level 2, followed by a significant rise between Levels 2 and 3, then a second drop between Levels 3 and 4, and finally another significant rise.

6.1.3. Some Comparisons Within LW Performance

The descriptive statistics in sections 6.1.1 and 6.1.2 are concerned with either the subjects' performance on tense-aspect in general, or their performance on individual T-A's. In this subsection, we adopt a comparative approach to the subjects' performance data.

6.1.3.1.

One noticeable thing from the rank order in Table 6.6 is that the top three are all from the 'non-aspect' categories, and the rest from the 'aspect' ones (non-aspect vs. aspect). To examine these two T-A groups developmentally, the subjects' mean performance scores (%) were rearranged and summed up according to the aspect (A2 + A3 + B2 + B3) and the non-aspect group (A1 + B1 + C1), as shown in Table 6.7.

Table 6.7 Level Sums for the Aspect & Non-aspect Groups

T-A Group	L1	L2	L3	L4	L5
Aspect	28.3	47.5	122.7	129.6	190.8
Non-aspect	128.0	154.3	193.0	191.2	242.7
t-tests between sums	*	*	*	*	**

* $p < .001$ ** $p < .01$ (2-tail probability)

t-tests were performed for the 5 pairs of sums, and the results indicated that the difference of sums at each level was highly significant, suggesting that the non-aspect T-A group was consistently easier for the subjects across the secondary spectrum.[4]

6.1.3.2

To study the developmental relationship between the Perfectives and the Progressives, the aspect group was divided into the Progressives (A2 + B2) and the Perfectives (A3 + B3). The level sums for the Progressive and the Perfective aspect are presented in Table 6.8.

Table 6.8 Level Sums for the Progressives and the Perfectives

Aspect	L1	L2	L3	L4	L5
Progressives	6.7	28.2	66.7	79.9	108.5
Perfectives	21.6	21.0	54.8	54.3	83.9
t-test between sums	*	n.s.	n.s.	**	n.s.

* p = .05 ** p < .01 (2-tail probability)

n.s. = not significant at .05 level

t-tests of significance were performed for the five pairs of sums. The results indicated that the difference was significant at Level 1 (p = .05) and Level 4 (p = .007). There was no significant difference at Level 2 (p = .372), Level 3 (p = .222) and Level 5 (p = .055). It must be pointed out that the difference at Level 5 barely missed the .05 significance level by .005.

Despite the significantly low scores initially, the Progressives overtook the Perfective by Level 2 and moved upward smoothly. By Level 4, the Progressives showed a significantly better performance than the Perfectives.[5]

The Perfectives, on the other hand, did not show any developmental gain in the L1-12 period and again in the L3-L4 period, as has been noted in section 6.1.2. As is clear from Table 6.8, the Perfectives consistently showed poorer performance, comparatively speaking, from L2 onward, suggesting that they were the more difficult categories for the learners.[6]

6.1.3.3.

This sub-section looks at the developmental relationship between the Simple Past (B1) and the Simple Future (C1). In Table 6.6, the rank order shows that, overall, B1 (50.2) was placed higher than C1 (49.7). But a glance at the relevant figures in Table 6.3 (reproduced

below) and Figure 6.2 tells us that there was an interaction between the two tenses and level. The cross-over point occurred at Level 3. Table 6.9 reproduces the relevant figures concerning the Simple Past and the Simple Future.

Table 6.9 Level $\bar{X}$'s for the Simple Past and the Simple Future

	L1	L2	L3	L4	L5
B1	34.5	41.8	54.8	52.5	67.6
C1	17.9	33.9	55.1	57.6	83.8
t-test between $\bar{X}$'s	*	n.s.	n.s.	n.s.	*
* $p < .05$			(2-tail probability)		

t-tests were applied to the five pairs of means. The results indicated that there was a significant difference in using B1 and C1 at Level 1 ($p = .015$) and Level 5 ($p = .013$). There was no significant difference at Level 2 ($p = .391$), Level 3 ($p = .915$) and Level 4 ($p = .754$).[7]

Despite the significantly better performance initially, the Simple Past lagged behind the Simple Future from Level 3 onward. It is interesting to note (cf. Figure 6.1) that B1 began (Level 1) at the second highest position but ended (Level 5) at the fourth place.

The exact opposite happened to C1, which began at the fourth position and ended at the second highest position.

6.1.3.4.

This sub-section examines the developmental relationship between the Present Perfect (A3) and the Simple Past (B1). The level means of the two categories are extracted from Table 6.3 and reproduced in Table 6.10 below.

Table 6.10 Level $\bar{X}$'s for the Present Perfect and the Simple Past

	L1	L2	L3	L4	L5
Present Perfect	19.7	19.0	42.4	40.7	55.4
Simple Past	34.5	41.8	54.8	52.5	67.6
t-tests between $\bar{X}$'s	*	*	n.s.	n.s.	n.s.

* $p < .05$ (2-tail probability)

The two rows of figures suggest that the Simple Past was easier, relatively speaking, since the values are consistently higher. However, t-tests of difference between the A3 and B1 means indicated that the difference in using the two categories was significant only at Level 1 ($p = .041$) and Level 2 ($p = .001$). The differences at the three higher levels were statistically not significant ($p = .079$, .129, and .058 for Levels 3, 4, and 5 respectively).[8]

It is interesting to note that from Level 2 onward, the developmental profiles for A3 and B1 looked similar (cf. Figure 6.1). Both had a regression between Level 3 and L4. No other T-A categories except the Past Perfect showed this pattern. Later, we shall explore what lies behind this regression.

6.1.4. Performance Range Analysis

This section reports on the distribution of subjects from each grade level who used specific T-A categories correctly at various performance/criterion levels. The analysis was aimed at revealing aspects of intra- and inter-group variation.

The performance criterion was first broken down into 5 levels, namely, 100-80, 79-60, 59-40, 39-20, and 19-0 percent correct.

On the basis of performance scores/data on each of the 7 T-A categories (see Appendix 10), the subjects were distributed according

to T-A category, Grade-level (GL) and Performance-level (PL).

6.1.4.1. The Simple Present

Table 6.11 reports the distribution of subjects from five grade levels in the Simple Present (A1) performance.

Table 6.11 Frequency Distribution of Subjects (%) in A1 Performance

PL (%)	L1 (N=30)	L2 (N=30)	L3 (N=30)	L4 (N=30)	L5 (N=30)
80-100	50.0	53.3	76.7	86.7	96.7
60-79	30.0	33.3	13.3	13.3	3.3
40-59	13.3	10.1	6.7	-	-
20-39	3.3	3.3	3.3	-	-
0-19	3.3	-	-	-	-

As can be seen from Table 6.11, there was a relatively wide spread of subjects across the various performance levels (PLs) at the first three grade levels (GLs), if we take into account the single cases in the 0-19 and the 20-39 range. The 'real' spread was only across the top three ranges (40-59, 60-79, and 80-100). In either account, the subjects spread became narrower, and the percentage of subjects reaching the 80-100% performance criterion steadily increased, from Level 1 through Level 5.

Here, the frequency distribution of subjects (%) within a particular grade level indicates the extent of intra-group variation, and the frequency distribution across the various levels indicates the extent of inter-group variation.

The frequency distribution in Table 6.11 indicates that the variable performance was the greatest at Level 1 and the smallest at Level 5. It should be pointed out that half or 50% of the subjects at Level 1,

in fact, reached the 80-100 criterion , indicating that the Simple Present (A1) was not at all difficult for the lower grade subjects, thus confirming the statistical picture we obtained in earlier analyses.

6.1.4.2. The Present Progressive

The performance ranges for the Present Progressive (A2) are presented in Table 6.12.

Table 6.12 Frequency Distribution of Subjects (%) in A2 Performance

PL (%)	L1 (N=30)	L2 (N=26)	L3 (N=28)	L4 (N=28)	L5 (N=28)
80-100	-	10.0	40.0	46.7	56.7
60-79	-	3.3	-	-	10.0
40-59	13.3	6.7	13.3	20.0	13.3
20-39	-	-	3.3	6.7	6.7
0-19	86.7	66.7	36.7	20.0	6.7

Contrary to their performance in A1, about 87% of the Level 1 subjects here gravitated towards the bottom (0-19) range of performance, with very little spread across the five performance levels. The situation improved at Level 2, with fewer percentage of subjects gravitating to the 0-19 range and some percentage of subjects spreading out across the upper performance levels. The situation continued to improve along the same pattern, with more and more percentage of subjects reaching the 80-100 criterion.

In A2 performance, there was, however, no clear break from the lower performance ranges (i.e. the 0-19, or the 20-39 range), as there was with A1. Intra-group variation was quite noticeable from Level 3 onward, especially Level 5, as indicated by the distribution of subject percentage. Furthermore, only about 57% of Level 5 subjects reached the 80-100% performance criterion, compared with 97% of Level 5 subjects reaching this criterion in the Simple Present (A1).

These two facts (the persistent intra-group variation, and the relatively low percentage of Level 5 subjects reaching the 80-100 criterion) placed the Level 5 learners/subjects in the middle of the A2 developmental continuum.

6.1.4.3. The Present Perfect

The frequency distribution of subjects (%) in the Present Perfect (A3) performance is presented in Table 6.13.

Table 6.13 Frequency Distribution of Subjects (%) in A3 Performance

PL (%)	L1 (N=30)	L2 (N=29)	L3 (N=30)	L4 (N=30)	L5 (N=30)
80-100	6.7	10.0	23.3	16.7	20.0
60-79	6.7	-	10.0	13.3	16.7
40-59	16.7	13.3	20.0	13.3	40.0
20-39	-	6.7	10.0	23.3	10.0
0-19	70.0	66.7	36.7	33.3	13.3

Table 6.13 indicates that subjects at each grade level spread out across the performance levels. At Levels 1 and 2, about 70% of the subjects gravitated to the 0-19 performance range, similar to the picture we obtained in the last sub-section.

It is important to note that while the percentage of subjects decreased with rise in Level for the 0-19 performance criteria, a rise in Level did not bring along a rise in performance for the 80-100 criterion, as would have been expected. The 'gains' from gradually moving away the 0-19 performance level had been fed into the mid performance levels only; they had not been channelled to the top level of performance.

It should further be noted that the subjects in Levels 3, 4,

and 5 spread out relatively evenly, indicating that intra-group variation is quite evident. A strong presence of intra-group variation at the higher performance levels (e.g. 80-100 and 60-79) strongly suggests that the Present Perfect (A3) was a difficult T-A category for the subjects to use or acquire. It also suggests that the subjects/learners, on the whole, were at some stages in the developmental continuum which were still far away from the target use.

6.1.4.4. The Simple Past

The frequency distribution of subjects in the Simple Past (B1) performance is presented in Table 6.14.

Table 6.14 Frequency Distribution of Subjects (%) in B1 Performance

PL (%)	L1 (N=30)	L2 (N=30)	L3 (N=30)	L4 (N=30)	L5 (N=30)
80-100	3.3	13.3	13.3	16.7	33.3
60-79	23.3	23.3	40.0	30.0	26.7
40-59	13.3	10.0	20.0	23.3	30.0
20-39	20.0	26.7	16.7	16.7	6.7
0-19	40.0	26.7	10.0	13.3	3.3

It is quite clear from Table 6.14 that, like A3 performance, subjects at each grade level spread out across the five performance levels.

Unlike A2 or A3, where subjects in the first two grade levels tended to gravitate towards the bottom level of performance (0-19), subjects here were more evenly distributed than in A3. Only 40% of the subjects at Level 1 were grouped under the 0-19 range. This percentage compared favourably with other T-A performance at the same level. Furthermore, 23.3% of the Level 1 subjects had already reached the 60-79 criterion, not to mention another 3.3% which reached

the 80-100 criterion. This distribution of subjects at Level 1 indicated that the subjects as a group already had some ability in using B1, but not sufficient to boost up the percentage at the higher performance ranges.

Despite this initial advantage over some other T-A performances, B1 exhibited a kind of 'gluey' development. The subjects' performance was variable at Levels 2, 3 and 4. Only at Level 5 was there a clearer sign that the subjects would leave the low performance ranges. The situation was slightly more promising here than in A3.

The within-group variation and a relative lack of between group variation reveal the fact that the subjects' use of the Simple Past, as of the Present Perfect in the last subsection, was in a state of flux across the entire secondary spectrum under study.

6.1.4.5. The Past Progressive

The frequency distribution of subjects (%) in the Past Progressive performance is shown in Table 6.15.

Table 6.15 Frequency Distribution of Subjects (%) in B2 Performance

PL (%)	L1 (N=21)	L2 (N=14)	L3 (N=19)	L4 (N=17)	L5 (N=17)
80-100	-	21.4	26.3	29.4	52.9
60-79	-	-	-	-	-
40-59	-	7.1(1)*	-	5.9(1)*	5.9(1)*
20-39	-	-	-	-	5.9
0-19	100(0)**	71.4	73.7	64.7	35.3

* The absolute figure in brackets is meant to clarify the percentage

** None of the subjects at L1 used the Past Progressive correctly.

First of all, a comment should be made on the relatively small number of subjects per Level cell. The uneven and comparatively small numbers at each level were largely due to the non-use of this category in some subjects' writing (cf. Data Appendix 10).

Apart from the number of subjects per cell, the most noticeable thing is a relative lack of within-level (intra-group) variation, if we leave aside the lone subjects at the 40-59 performance range. Removing the mid-range cases results in a 'Top or Bottom' situation, i.e. the subjects at each level either performed very well (in the 80-100 range) or did very poorly (the 0-19 range). Table 6.15 indicates that at Levels 2, 3 and 4, it was the bottom end which prevailed. The situation at Level 5 was slightly different: the percentage of subjects reaching the 80-100 criterion rose to 52.9%.

As has been noted, any attempt, if at all, at Level 1 ended in failure. B2 was the only T-A category which let the L1 subjects down completely.

The 'absenteeism' or non-use phenomenon will be discussed at a later stage of the thesis.

6.1.4.6. The Past Perfect

The frequency distribution of subjects in the Past Perfect (B3) performance is presented in Table 6.16.

Table 6.16 Frequency Distribution of subjects (%) in B3 Performance

PL (%)	L1 (N=29)	L2 (N=30)	L3 (N=30)	L4 (N=30)	L5 (N=30)
80-100	-	-	6.7	-	10.0
60-79	-	-	6.7	-	6.7
40-59	-	-	3.3	13.3	20.0
20-39	6.9	6.7	10.0	20.0	20.0
0-19	93.1	93.3	73.3	66.7	43.3

Despite the fact that B3 was the most difficult category for the subjects (cf. Table 6.6), only one subject from Level 1 fails to produce any B3 form.

As is clear from Table 6.16, the percentage of subjects at each level was not evenly distributed. Levels 1 and 2 had similar distribution: 93% of the subjects gravitated towards the lowest performance range. At Level 3, there were a few successful attempts reaching the upper performance levels, and then they lapsed again into the lower performance ranges at Level 4. Finally, the subjects spread out again across the different ranges. Intra-group variation did not feature prominently in B3 as did in some other T-A categories, e.g. A3 and B1. As regards inter-group variation, the only noticeable feature here was the gradual change of percentage of subjects in the 0-19 performance range, shifting from about 90% at Levels 1 and 2, to about 70% at Levels 3 and 4, and finally to about 40% at Level 5. It appears that the real take-off, developmental activity occurred at Level 5 in our sample of subjects; this is indicated by a wider and more even spread of subjects across the various performance levels, and a reduction of percentage in low performance ranges.

6.1.4.7. The Simple Future

The frequency distribution of subjects in the Simple Future (C1) performance is presented in Table 6.17.

Table 6.17 Frequency Distribution of Subjects (%) in C1 Performance

PL (%)	L1 (N=27)	L2 (N=30)	L3 (N=28)	L4 (N=25)	L5 (N=29)
80-100	7.4	23.3	36.7	28.0	72.4
60-79	-	6.7	6.7	12.0	13.8
40-59	18.5	10.0	16.7	36.0	6.9
20-39	3.7	3.3	6.7	12.0	-
0-19	70.4	56.7	26.7	12.0	6.9

The distribution in Table 6.17 provides an average L2 learning or developmental pattern typical of the Hong Kong situation.

As is clear from the Table, the Level 1 subjects showed variable performance (indicated by the subject spread) which gravitated towards the low performance ranges. At Levels 2 and 3, the intra-group variation accelerated and the subject spread was more evenly distributed. Meanwhile there was a gradual shift of subject percentage from the lower end slowly toward the upper ranges, as evident from two pairs of figures: 23.3 vs. 56.7 at Level 2 and 36.7 vs. 26.7 at Level 3. The two pairs of figures indicate a change from 'bottom-heavy' to 'top-heavy'. The pair at Level 4 continued the 'top-heavy' trend through Level 5. At Level 5, the subjects still showed variable performance which, however, gravitated towards the top performance level.

It is important to note that at all stages or grade levels, the subjects' performance in C1 was variable, as indicated by the subject distribution. At the mid stages/grade levels, variable performance was at its highest.

6.1.4.8. Summary

To summarize the subsections within 6.1.4, we may observe that the distributional analyses on each of the seven T-A categories have not only confirmed some earlier analyses and observations, but also provided more detailed, quantitative information about the development and use of the seven T-A categories.

Furthermore, the analyses in 6.1.4 have established that at any one grade level or stage, the subjects' performance exhibited intra-group variation. The extent of variation was determined by specific tense-aspect categories. There was, relatively speaking, smaller within-group variation in the use of the Simple Present (A1)

and the Past Progressive (B2); within-group variation featured prominently in the use of the Present Perfect (A3), the Simple Past (B1), and the Simple Future (C1).

The notion of 'developmental continuum' is empirically supported by the analyses here. The subjects in our study did not go through the five academic levels in a series of (linguistically) well defined performance levels, i.e. the group of learners would go through one performance level after another. It was repeatedly pointed out during analyses that in any one group or at any one grade level there was a wide spread of subjects covering various performance levels. For example, data from Table 6.13 (on the Present Perfect) show that some Level 5 subjects stayed at the 0-19 performance level, while a few Level 1 subjects achieved the 80-100 criterion. It is this kind of spread across performance levels which constitutes the continuum.

6.1.5. Summary of Section 6.1

We began this section ('tense-aspect in LW') by establishing a general picture of development in the use of tense and aspect, taking the Null Hypothesis as the point of departure, which was subsequently rejected (6.1.1). We then moved on to study the development and use of individual T-A's quantitatively. The examination ended with some observations on some individual T-A's and a tentative rank order of difficulty for the seven categories (6.1.2). We proceeded to compare some T-A's or groups of T-A's, noting their developmental relationships over five academic levels (6.1.3). Finally, we studied the subjects' performance range within a particular grade level and between grade levels. The analyses here provided additional information about the developmental patterns of individual T-A's (6.1.4).

Three instruments were used to establish the findings in this

section: ANOVA, t-test, and distributional analysis. ANOVA was used to provide information about general development of (specific) T-A's across the five academic levels. To study the nature of progression, particularly between any two levels, t-test was used. It was also used to compare the difference between the performances in two T-A categories within a specific level. Distributional analysis was used to study the distribution of subjects, at each grade, in the various performance levels, and at the same time the extent of within-group variation in performance.

On the basis of the various analyses, the following summary statements are derived.

a) The Null Hypothesis (that there is no difference in performance between and across five secondary levels) was rejected. There was significant development in the use of tense and aspect across five academic levels (6.1.1).

b) In general terms, the subjects exhibited active T-A development in two periods, between Levels 2 and 3, and more so between Levels 4 and 5. The subjects did not show any significant progress during Levels 3 and 4. This pattern of progression was confirmed by the development of four T-A's (6.12.): A3, B1, B3, and C1.

c) It was established in Tables 6.3 and 6.11 that the Simple Present was the easiest tense for subjects of all academic levels, and that the Past Perfect was the most difficult. Intra-group variation was not prevalent across the five levels.

d) The non-aspect group (A1 + B1 + C1) was found to be consistently easier than the 'aspect' group (A2 + A3 + B2 + B3) for subjects at all levels of proficiency (6.1.3).

e) The Present Perfect (A3), the Simple Past (B1) and the Simple Future (C1) showed a high degree of intra-group variation in

performance across the five grade levels, indicating that the subjects were in a state of developmental flux (6.1.4.3, 6.1.4.4, and 6.1.4.7).

f) The non-use phenomenon and a lack of intra-group variation in the Past Progressive was quite conspicuous (6.1.4.5).

g) The 'order of difficulty' for the use of T-A's in the LW task is as follows (cf. Table 6.6):
   1. The Simple Present (A1)
   2. The Simple Past (B1)
   3. The Simple Future (C1)
   4. The Present Progressive (A2)
   5. The Present Perfect (A3)
   6. The Past Progressive (B2)
   7. The Past Perfect (B3)

h) At any one academic grade, there was a spread of subjects covering various performance levels, constituting a 'continuum'.

6.2. Tense/Aspect in Fill-in-blank (FIB)

As stated in Chapter Five, one of the purposes of the fill-in-blank task was to provide additional descriptive data on the subjects' IL developmental patterns in the seven T-A categories. This section presents results of analyses of 7 tense-aspect categories in the FIB task. The subjects' performance scores (%) can be found in Appendix 11.

6.2.1. General Developmental Pattern in FIB

In this subsection, we examine the overall developmental pattern in T-A use in the context of the FIB task. Based on the subjects' performance scores (%) on tense and aspect, the overall level means (%) for the five grade levels were calculated. The results of the calculation are presented in Table 6.18.

Table 6.18 Level $\bar{X}$'s for T-A Performance in FIB

	L1	L2	L3	L4	L5
Level Mean	23.2	26.4	40.1	50.7	62.4

The first point to note is that the level $\bar{X}$'s from FIB look very close to those from the letter-writing (LW) task, the latter being 22.9, 31.6, 48.7, 50.7 and 67.4 for the respective levels (cf.6.1.1). To test the developmental significance of the means, an analysis of variance (SPSSX 1.0) across the five levels was performed, and the result indicated that there was a highly significant level effect ($p < .001$).

To determine the exact nature of the progression, t-tests between the level $\bar{X}$'s were applied, and the results are presented in Table 6.19.

Table 6.19 t-tests of Significance Between Level $\bar{X}$'s

Level (n)	X	S	t	df	1-tail p
1 (29)	23.1	13.14			
			-0.94	57	.176
2 (30)	26.4	13.70			
			-3.38	58	.001
3 (30)	40.1	17.50			
			-2.57	58	.007
4 (30)	50.7	13.99			
			-3.67	56	.001
5 (28)	62.4	9.93			

The results of the t-tests indicated that the only pair of level means not reaching the .05 significance level was Levels 1 and 2. The other three pairs of level $\bar{X}$'s were highly significant.

The t-test results here in some way contradicted the t-test results obtained for the LW data in subsection 6.1.1, where the difference between L3 and L4 mean was not significant.

Despite this discrepancy, the FIB results lent support to an earlier observation (cf. 6.1.1, and 6.1.5.6) that the periods for highly significant development occurred between Levels 2 and 3, and between 4 and 5. In Table 6.19, the results for Levels 2 and 3, and levels 4 and 5 showed exactly just that.[1]

6.2.2. Development of Specific T-A's in FIB

Based on the subjects' performance scores (%) on the seven T-A's, the level means for each category were calculated for the five academic levels. The results of the calculation are presented in Table 6.20.

Table 6.20 Level $\bar{X}$'s for the 7 Tense-aspect Categories

T-A	L1	L2	L3	L4	L5
A1	30.8	26.5	32.9	41.8	48.9
A2	30.6	27.6	39.5	55.2	71.4
A3	23.7	22.4	34.3	51.0	62.2
B1	40.4	43.8	57.6	44.0	56.6
B2	7.6	14.7	40.0	59.3	64.3
B3	3.5	12.0	23.3	37.8	59.0
C1	25.6	38.1	53.3	65.2	74.5

The first thing to note in Table 6.20 is that here the level means for the Simple Present (A1) were much lower than the A1 level means in LW (cf. Table 6.3). In LW, the level means for A1 ranged

from 77.3% to 94.1%, with an overall $\bar{X}$ of 85.5%. Here, in FIB, the A1 level means ranged from 26.5% to 48.9%, with an overall $\bar{X}$ of 36.0%. The difference is striking.

Another point to note is that there were three level mean regressions at Level 2, all from the Present group (A1, A2 and A3), and one at Level 4 (B1).

To see the developmental significance of these level means, ANOVA's (SPSSX 1.0) were performed on each of the seven T-A's. The results are shown in Table 6.21.

Table 6.21 Results of ANOVA's on 7 T-A Categories

T-A	Sum of Squares	df	$\bar{X}^2$	F
A1	32443.85	4	8110.96	8.40*
A2	122292.51	4	30573.13	35.17*
A3	74186.35	4	18546.59	23.97*
B1	23185.27	4	5796.31	12.70*
B2	109960.46	4	27490.12	29.11*
B3	92482.41	4	23120.60	32.86*
C1	133513.79	4	33378.45	40.75*

* $p < .001$

The ANOVA results showed that there was a highly significant level effect for each of the 7 T-A's ($p < .001$), i.e. the progress over time was significant.

Following the established procedure, t-tests of significance between level means for each tense-aspect category were performed to determine the nature of progression. Table 6.22 summarizes the t-test results. The four decimal numbers in each row represent p-values.

Table 6.22 Summary of t-tests Between Level $\bar{X}$'s on each of the 7 Tense-aspect Categories (FIB)

Levels T-A	1-2	2-3	3-4	4-5
A1	.224	.094	.051	.086
A2	.328	.030*	.010*	.005+
A3	.423	.053	.012*	.042*
B1	.280	.006+	.006+	.002+
B2	.074	.001+	.005+	.176
B3	.025*	.050*	.038*	.003+
C1	.039*	.019*	.034*	.045*

All values are in 1-tail probability

* $p < .05$ + $p < .01$

As can be seen from Table 6.22, the tense-aspect categories did not show uniform development over the five levels. The Simple Present (A1), for example, did not show any significant development between levels.

What is clear here in Table 6.22, but not so in Table 6.19, is the fact that the level $\bar{X}$'s between Level 1 and L2 for the Past Perfect (B3) and the Simple Future (C1) were significantly different.

It should be noted that the highly significant differences between Levels 3 and 4 and also 4 and 5 for the Simple Past (B1) were due to a regression of performance at Level 4. If we compare the Level 3 mean and Level 5 mean, we can see that the two would not be significant (57.6 vs. 56.6).

The development and use of T-A's in terms of the FIB task is graphically represented in Figure 6.2 (Based on Table 6.20).

It is clear from Figure 6.2 that except for the Simple Past (B1), the various T-A categories progressed relatively steadily from Level 2 onward. There was, however, no T-A category in the FIB task which can be said to be consistently easy or difficult.[2] (Recall that in the LW task, the Simple Present was consistently the easiest and the Past

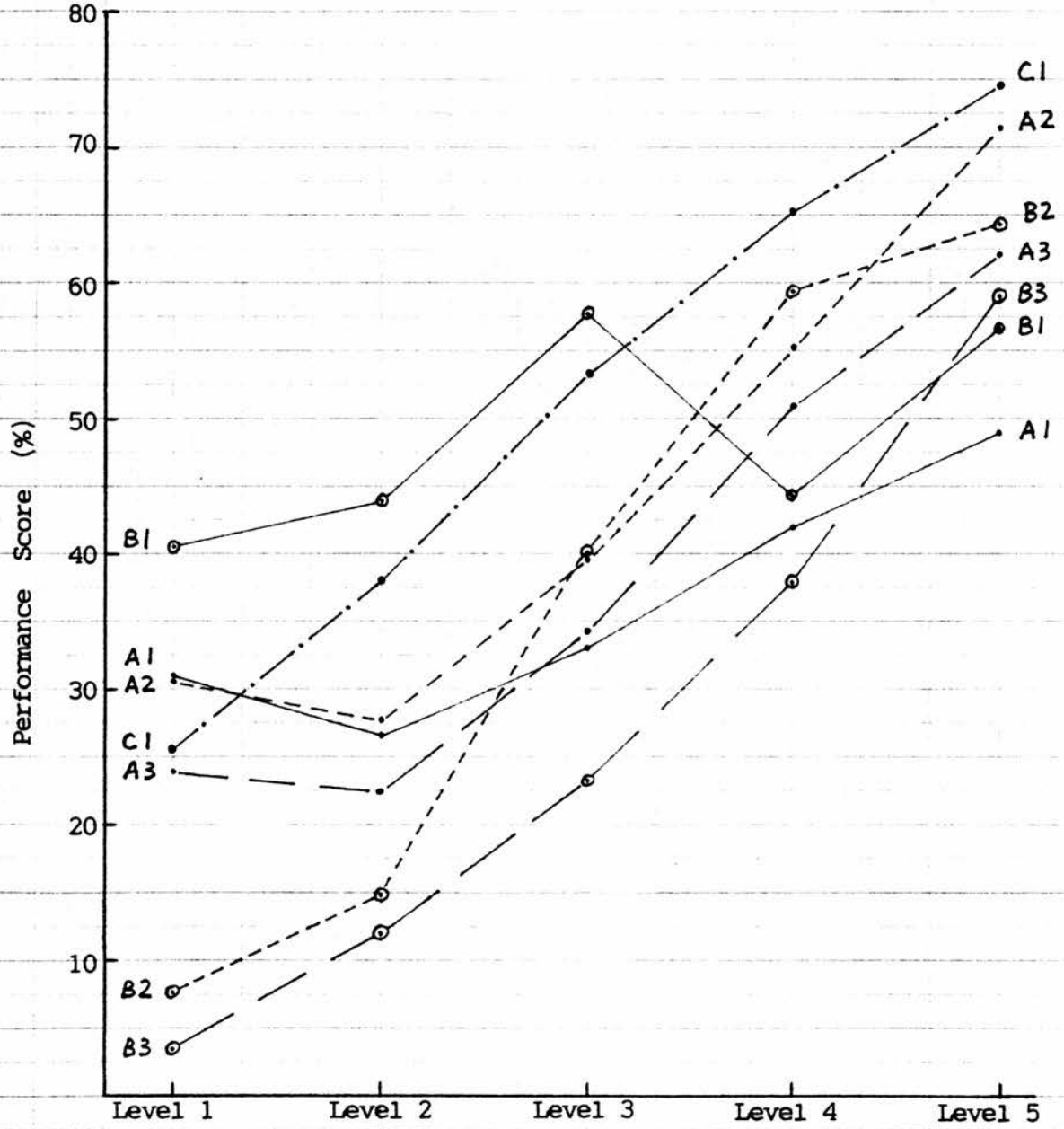


Figure 6.2 Level $\bar{X}$'s for the 7 T-A's in FIB

Perfect the most difficult.) To get an idea about the relative difficulty of the various T-A categories, all the level means for each T-A category were summed up and averaged, and arranged in order of difficulty. The results of the computation are shown in Table 6.23.

Table 6.23 Rank Order of 7 T-A's in FIB

Rank	T-A	Overall Performance(%)
1	C1	51.2
2	B1	48.5
3	A2	44.6
4	A3	38.5
5	B2	37.0
6	A1	36.0
7	B3	26.9

In the FIB task, the Simple Future (C1) appeared to be the 'least difficult', followed by the Simple Past (B1) and the Present Progressive (A2). The Past Perfect (B3) was again found to be the most difficult.[9]

It should be noted that the Simple Present (A1) was the second most difficulty category for our subjects. The finding here is in stark contrast to that in the LW, where the Simple Present was the easiest. We shall return to this discrepancy later.

To sum up Section 6.2.2, we may observe that cumulatively over a five year period, there was significant development in the use of tense and aspect. But smooth progression did not appear to be the case with all T-A categories. The Past Perfect (B3) and the Simple Future (C1), for example, progressed almost in a straight line, while the Simple Past developed in a zigzagged way.

As far as the FIB data can tell, the period between Level 2 to Level 5 was, in general, a time for the significant development of most T-A's.

The Past Perfect was the most difficult category for the subjects to use.

6.2.3. Some Comparisons Within FIB Performance

In this subsection, we compare some T-A categories or groups in FIB. The procedure is the same as that we adoped in section 6.1.3.

6.2.3.1. 'Aspect' vs. 'Non-aspect'

The subjects' performance scores (%) on the 'aspect' (A2 + A3 + B2 + B3) and the 'non-aspect' (A1 + B1 + C1) at each level were summed up, and t-tests were performed on the pairs of 'aspect' and 'non-aspect' sums. The results are presented in Table 6.24.

Table 6.24 Level Sums for the Aspect & Non-aspect Group

T-A Group	L1	L2	L3	L4	L5
Aspect	65.2	76.7	137.2	203.3	257.0
Non-aspect	96.8	108.4	143.8	151.3	180.0
T-tests between sums	*	*	n.s.	*	**

* $p < .01$ ** $p < .001$ (2-tail probability)

n.s. = not significant at .05 level

The t-test results indicated that the subjects' performance on the aspect and the non-aspect group differed significantly at four grade levels, as far as FIB is concerned. Non-aspect (A1 + B1 + C1) performance was significantly better at Levels 1 and 2, while at Levels 4 and 5, aspect performance was significantly better. There was no significant difference at Level 3 ($p = .646$).[10]

6.2.3.2. Progressive vs. Perfective

The developmental relationship between the two members of the aspect group, i.e. the Progressives (A2 + B2) and the Perfectives (A3 + B3), was examined. The level sums for the two groups were calculated, and t-tests were performed on the 5 pairs of sums. The results are shown in Table 6.25.

Table 6.25 Level Sums for the Progressive and the Perfective

T-A Group	L1	L2	L3	L4	L5
Progressive	38.1	42.3	79.5	114.6	135.7
Perfective	27.1	34.4	57.6	88.7	121.3
t-test between sums	n.s.	n.s.	*	*	n.s.

* $p < .01$ n.s. = not significant at .05 level
(2-tail probability)

At each of the five levels, the subjects performed better in the Progressive aspect.[5] However, the difference between Progressive and Perfective performance was statistically not significant at Level 1 (2-tail p = .102), Level 2 (p = .246), and Level 5 (p = .091).[6]

6.2.3.3. Simple Past vs. Simple Future

In FIB, the Simple Future (C1) and the Simple Past (B1) were rank-ordered first and second. But they, in fact, interacted with Level. The cross-over point is between Levels 3 and 4. Table 6.26 presents the level means between B1 and C1 and the results of t-tests performed on these pairs of means.

Table 6.26 Level $\bar{X}$'s for the Simple Past and the Simple Future

Tense	L1	L2	L3	L4	L5
B1	40.4	43.8	57.6	44.0	56.6
C1	25.6	38.1	53.3	65.2	74.5
t-tests between $\bar{X}$'s	*	n.s.	n.s.	*	**

* p = .001 ** p < .001 (2-tail probability)

At Level 1, subjects performed significantly better in B1 in the FIB task. At Levels 2 and 3, performance in B1 was still better than C1, but the difference was not significant. After Level 3, C1 performance overtook B1. The performance gap was even more significant at Level 5. A very similar pattern of development for C1 was observed earlier in the LW data (6.1.3.3).[7]

6.2.3.4. Present Perfect vs. Simple Past

This subsection studies the developmental relationship between the Present Perfect (A3) and the Simple Past (B1). The level means for A3 and B1 together with the t-test results of difference between the pairs of means are presented in Table 6.27.

Table 6.27 Level $\bar{X}$'s for the Present Perfect and the Simple Past

Tense	L1	L2	L3	L4	L5
A3	23.7	22.4	34.3	51.0	62.2
B1	40.4	43.8	57.6	44.0	56.6
t-tests between $\bar{X}$'s	*	**	*	n.s.	n.s.

* p < .01 ** p < .001 (2-tail probability)

n.s. = not significant at .05 level

Like what we have just seen in 6.2.3.3, the subjects' B1 performance was significantly better than A3 performance in the first three

levels. But after Level 3, B1 performance was overtaken by A3. However, the A3's gain did not constitute a significant difference.[8]

It may be observed, in passing, that the subjects' FIB performance in the Simple Past (B1) lacked any 'dynamic' change over the five year period. 'Gluey development' is the term we used earlier to describe the B1 performance data in the LW task (cf. subsection 6.1.4.4).

6.2.3.5. Summary of Section 6.2

The performance of the subjects in the FIB task indicated that cumulatively, a general but significant progression from Level 1 through Level 5 was evident. This observation applies to the overall tense-aspect development as well as the development of any single tense-aspect category (see results of ANOVA's on the 7 T-A categories in Table 6.21).

As reflected in the FIB performance data, the subjects showed significant tense-aspect development from Level 2 onward, especially during Levels 2 and 3 as well as Levels 4 and 5 (see Table 6.19). No significant difference in T-A performance between Level 1 and Level 2 was observed.

Table 6.22, together with Figure 6.2, indicates that the Simple Present (A1) was a difficult category for the subjects. This result in FIB was in direct conflict with an earlier result in LW which established A1 as an 'easy' category.

An 'order of difficulty' based on the overall means of the seven T-A categories was establish:

1. The Simple Future (C1)
2. The Simple Past (B1)
3. The Present Progressive (A2)

4. The Present Perfect (A3)
5. The Past Progressive (B2)
6. The Simple Present (A1)
7. The Past Perfect (B3)

The most difficult T-A category was B3, confirming its position in the other (LW) order of difficulty. The Simple Past (B1) retained number 2 position as well.

The subjects' performance on the aspect and the non-aspect groups showed an interaction with Level. At the first two years/levels, non-aspect performance was better than aspect performance. The opposite was the case at Levels 4 and 5; here the subjects' performance on aspect was significantly better.[11]

In the FIB task, the subjects produced higher scores for the Progressive aspect than for the Perfective aspect. But the difference was not significant at Levels 1, 2, and 5.

Two tense comparisons (B1 vs. C1, and B1 vs. A3) revealed the 'sluggish' or 'gluey' development of the Simple Past as reflected in the FIB performance data.

6.3. A Few Comparisons Between LW and FIB Performance

In this short section, we attempt to put together the findings in Sections 6.1 and 6.2.

6.3.1. Overall Level Means Comparison

The following is the overall level means for the letter writing (LW) and the fill-in-blank (FIB) task.

	L1	L2	L3	L4	L5
LW	22.9	31.6	48.7	50.7	67.4
FIB	23.2	26.4	40.1	50.7	62.4

To determine statistically whether the difference between the two sets of performance means is significant, t-tests (SPSSX 1.0) were performed for each of the 5 pairs of level $\bar{X}$'s. The results are presented in Table 6.28.

Table 6.28 t-tests of Overall Level $\bar{X}$'s in LW and FIB

Level	Task(n)	$\bar{X}$	S	t	df	2-tail p
1	LW (30)	22.9	9.54			
				-0.07	57	.943
	FIB(29)	23.2	13.14			
2	LW (30)	31.6	18.03			
				1.26	58	.213
	FIB(30)	26.4	13.70			
3	LW (30)	48.7	22.12			
				1.67	58	.100
	FIB(30)	40.1	17.50			
4	LW (30)	50.7	15.95			
				.00	58	.998
	FIB(30)	50.7	13.99			
5	LW (30)	67.4	15.63			
				1.44	56	.157
	FIB(28)	62.4	9.93			

The t-test results clearly indicated that there were no significant differences between the pairs. We may conclude that, overall, the two sets of performance means/standards were 'statistically similar'; in other words, the subjects at any one level did not perform significantly better either in the letter-writing task or in the fill-in-blank task.[12]

6.3.2. Comparison of Task Means on the 7 T-A Categories

In this subsection, we compare the overall means for the seven T-A categories in LW and FIB. The tense-aspect means for the two tasks, together with the t-tests (SPSSX 1.0) results, are presented in Table 6.29.

Table 6.29 Task $\bar{X}$'s Comparison on 7 T-A Categories (t-tests)

T-A	Task (n)	$\bar{X}$	S	t	df	2-tail p
A1	FIB (147)	36.0	21.96	-21.07	295	.000*
	LW (150)	85.5	18.39			
A2	FIB (147)	44.6	28.85	0.36	285	.715
	LW (140)	43.0	44.44			
A3	FIB (147)	28.5	30.02	0.75	294	.451
	LW (149)	35.6	36.66			
B1	FIB (147)	48.5	20.63	-0.61	295	.539
	LW (150)	50.2	27.29			
B2	FIB (147)	37.0	31.78	2.62	242	.009*
	LW (97)	24.6	42.09			
B3	FIB (147)	26.9	31.05	4.44	294	.000*
	LW (149)	12.5	24.09			
C1	FIB (147)	51.2	29.80	0.35	284	.730
	LW (139)	49.7	42.20			

* $p < .05$

The t-test results in Table 6.29 clearly indicated two things:

a) There was significant performance difference between the letter-writing (LW) and the fill-in-blank (FIB) task on the following areas of tense and aspect:[13]

the Simple Present (A1)

the Past Progressive (B2)
the Past Perfect (B3)

b) There was no significant performance difference between the LW and the FIB task on the following T-A categories:

the Present Progressive(A2)
the Present Perfect (A3)
the Simple Past (B1)
the Simple Future (C1)

6.3.3. The LW vs. the FIB Rank Order Correlation

To determine the degree of similarity between the orderings of the 7 T-A categories obtained through the LW and the FIB task, a Spearman Rank correlation was performed, using the following formula:

$$r = 1 - \frac{6 \quad d^2}{n\ (n^2 - 1)}$$

where d = difference between ranks, and n = number of items. The LW and FIB orders can be found in Table 6.6 and Table 6.23.

The obtained Spearman coefficient (r) was 0.43. With n = 7, the significant coefficient must be 0.714 (at .05 level). The result was therefore not significant at the .05 level. We may conclude that there was no significant ordering relationship between the LW and the FIB order.

6.3.4. General Developmental Patterns in LW and FIB

The results of the t-tests between level $\overline{X}$'s in LW (Table 6.2)

and in FIB (Table 6.19) are reproduced below in a modified format for the purpose of comparison (where L = level):

	L1-L2	L2-L3	L3-L4	L4-L5
LW	.012*	.001*	.352	.000*
FIB	.176	.001*	.007*	.001*

All values are in 1-tail probability

* $p < .05$

Two descriptive observations may be made: first, the two periods L2-L3 & L4-L5 were unambiguously marked for highly significant development (as indicated by the highly significant difference between the level means).[1] Second, the subjects did not show the same degree of progression/development in the periods L1-L2 and L3-L4. (We shall return to this point in the section 6.5.1.)

6.3.5. Aspect vs. Non-aspect in LW and FIB

From the LW analysis (6.1.3.1), the non-aspect group (A1 + B1 + C1) was found to be significantly easier than the aspect group (A2 + A3 + B2 + B3) for the subjects at all levels.[4] From the FIB analysis (6.2.3.1), the non-aspect group of tenses was, however, significantly easier only with the first two levels. The subjects' performance on the aspect group was, in fact, significantly better at Levels 4 and 5.[10] There was an interaction between Aspect and Level in the FIB performance.[11]

6.3.6. Progressive vs. Perfective in LW and FIB

In the LW task (Table 6.8), the subjects performed better, in terms of percentage scores, on the Progressives than on the Perfectives

from Level 2 through Level 5. In FIB (Table 6.25), a similar picture of performance was observed, again in terms of percentage scores. The Perfectives had lower performance scores consistently.

In LW as well as in FIB, the performance difference was statistically significant only at Level 4. In FIB, it was also significant at Level 3.[6]

6.3.7. Simple Past vs. Simple Future

Both the LW and the FIB analysis (Tables 6.9 and 6.26 respectively) show that there was an interaction between Level and the two T-A categories. Subjects performed significantly better in the Simple Past (B1) at Level 1. But towards Level 5, the subjects' performance in the Simple Future (C1) became significantly better than their performance in B1.[7]

It should be noted that the B1 performance in LW and in FIB regressed at Level 4.

6.3.8. Present Perfect vs. Simple Past in LW and FIB

The performance data on the Present Perfect (A3) and the Simple Past look very much the same in LW and FIB (Tables 6.10, 6.27 and 6.29).

At the first two/three levels, subjects performed significantly better in the Simple Past (B1). At Levels 4 and 5, however, no significant difference existed.[8]

6.3.9. Development and Use of T-A in LW and FIB

To end Section 6.3 in an 'agreeable note' a comparison is made between the development of T-A as a whole and of specific T-A categories across the secondary spectrum as reflected in the LW data and that reflected in the FIB data.

Based on the analyses of variance done in subsections 6.1.1, 6.1.2, 6.2.1, and 6.2.2, two conclusions are made:

(i) Cumulatively, there was a significant development in the use of tense and aspect across the secondary school spectrum, as is evident in the LW and the FIB data.

(ii) Across the secondary spectrum, there was a significant development in the use of individual T-A categories, as is evident in the LW and the FIB data.

6.4. Time Adverbials (T-adverbials) in Letter Writing

This section presents results of the analyses of developmental data on T-adverbials. The data for the analyses were obtained through the processing procedure described in subsection 5.4.2.

6.4.1. Preliminary Analysis

There were altogether 2599 T-adverbials identified in the 150 subjects' compositions, of which 598 were 'singleton' adverbials, 1456 T-phrases, and 545 T-clauses. The subjects' performance data (raw scores) on the (in)correct use of the three types of T-adverbials can be found in Appendix 12. Table 6.30 below shows the level means for the five secondary school levels.

Table 6.30 Level $\bar{X}$'s (%) for T-adverbial Performance

L1	L2	L3	L4	L5
32.1	44.1	56.7	63.5	77.6
(13.0)	(16.3)	(16.8)	(18.1)	(22.4)

Each bracketted figure indicates the average number of T-adverbials produced per pupil at each level.

The level $\bar{X}$'s ranged from 32.1 at Level 1 to 77.6 at Level 5, with a difference of 45.5 over a five year period. There was a steady, upward trend. An analysis of variance (SPSSX 2.0) across the five levels showed that the level effect was highly significant ($p < .001$).

To study this trend more closely, t-tests (SPSSX 2.0) between the level $\bar{X}$'s were performed, and the results are shown in Table 6.31.

Table 6.31 t-tests Between Level $\bar{X}$'s

Level (n)	$\bar{X}$	S	t	df	1-tail p
1 (30)	32.1	21.0			
			-2.15	58	0.018*
2 (30)	44.1	22.4			
			-2.35	58	0.011*
3 (30)	56.7	19.1			
			-1.59	58	0.059
4 (30)	63.5	13.4			
			-4.36	58	0.000**
5 (30)	77.6	11.7			

* $p < .05$ ** $p < .001$

The results of the t-tests indicated that the difference between Level 3 and Level 4 was statistically not significant ($p = .059$) although it was quite close to it. We may recall from Table 6.2 that there was no significant development in tense and aspect between L3 and L4. All other level differences were significant. It may be concluded at this point that the development of T-adverbials, in the context of the present study, was related to levels of proficiency, and was, in general terms, a relatively steady progression, with a temporally slowing down between L3 and L4, and a good pick-up at L5.

6.4.2. Developmental Profiles for Individual Structural Types of T-Adverbials

Based on the subjects' performance on each of the three structural types of T-adverbials, the level means ($\bar{X}$'s) on each structural type were calculated, and the results are presented in Table 6.32.

Table 6.32 Level $\bar{X}$'s for Three Structural Types of T-Adverbial

	L1 (N=30)	L2 (N=30)	L3 (N=30)	L4 (N=30)	L5 (N=30)
Clause	13.7	24.2	39.8	29.8	55.9
Phrase	30.0	37.1	49.6	64.1	74.8
Singleton	62.6	86.3	89.1	90.4	94.9

The row totals for the three structural types are: Clause: 32.7; Phrase: 51.1; Singleton: 84.7. Overall, singleton T-adverbials appeared to be the easiest to use, consistently as in each of the 5 levels, and T-clause consistently the most difficult, with T-phrases at the mid-point. It is interesting to compare the three sets of level $\bar{X}$'s to the overall level $\bar{X}$'s in Table 6.30. The structural type that has scores closest to the overall means is the phrasal T-adverbials. In other words, the phrasal T-adverbial use reflected the overall T-adverbial use.

At this juncture, we may conclude, on the basis of the three sets of scores in Table 6.32, that the internal structure of the T-adverbial appears to have influenced the learners' use of temporal adverbials.

To study the developmental profile for each structural types, ANOVA's (SPSSX 2.0) were performed on the three sets of level $\bar{X}$'s. The results are shown in Table 6.33.

Table 6.33 Results of ANOVA's on Clausal, Phrasal and Singleton T-adverbials

T-adverbial	Sum of Square	df	$\bar{X}^2$	F
Clause	30407.1	4	7601.8	8.54*
Phrase	41281.0	4	10320.2	22.14*
Singleton	17867.0	4	4466.8	8.98*

* $p < .001$

All three types of T-adverbials showed developmental effects across levels ($p < .001$), suggesting that the development and use of each adverbial type was related to the level of proficiency.

Following our established pattern of analysis, we examine the nature of progression by means of t-tests between level $\bar{X}$'s (from the same program: SPSSX 2.0). Table 6.34 summarizes the t-tests results.

Table 6.34 Summary Results of t-tests Between Level X's (Significance at .05 level)

Levels	1 - 2	2 - 3	3 - 4	4 - 5
Type				
Clause	.073	.035*	.130	.001*
Phrase	.148	.025*	.003*	.007*
Singleton	.003*	.303	.395	.144

All values in 1-tail probability. *significant

For clausal adverbials, there were two places where the difference of level means was non-significant: between Level 1 and Level 2, and between Level 3 and Level 4. In fact, there was a drop of 10 percentage points between L3 and L4, making the profile look like a zigzag sign.

For phrasal adverbials, the difference between Level 1 and Level 2 was not significant; all the other pairs were, however, significant, indicating a significantly steady upward trend after the initial period.

For singleton adverbials, the difference between L1 and L2 was significant, showing an early upward trend. However, the other pairs of level means did not show significant difference. This pattern of development between levels was in direct contrast to the developmental pattern of phrasal adverbials.

The three developmental profiles are graphically represented in Figure 6.3 (see next page).

6.4.3. Summary of Results on T-adverbials

The subjects' performance on time adverbials indicated that overall there was a general and relatively steady progression from Level 1 through Level 5, with a temporary slowing down during the Level 3 and Level 4 period.

Of the three structural types of time adverbials, the clausal ones were consistently the most 'difficult' for the subjects, from Level 1 through Level 5, and the singleton adverbials consistently the 'easiest'. Phrasal adverbials were neither too difficult nor too easy to use, but reflected average difficulty and also the overall T-adverbial use. It was suggested that the learners' use of T-adverbials might be influenced by the internal structure of T-adverbial. There was clear evidence supporting this suggestion.

The subjects showed different patterns of development in the use of clausal, phrasal, and singleton T-adverbials.

Clausal adverbials did not show a 'smooth' progression: there was no significant progression between L1 and L2, and between L3 and L4. The subjects showed a zigzag pattern of development.

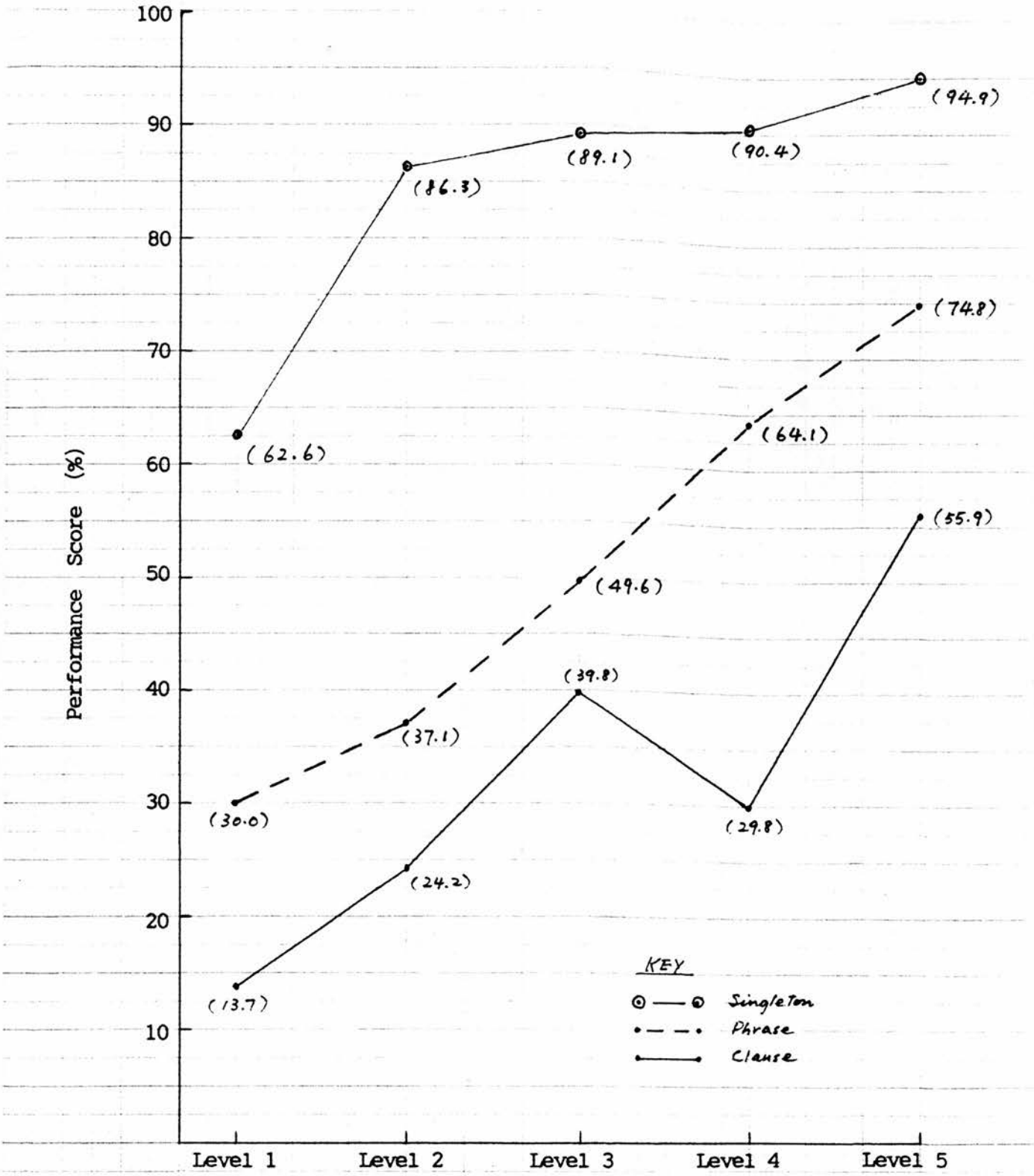


Figure 6.3 Level $\bar{X}$'s for the Three Types of Time Adverbials

Phrasal adverbials had a poor start, as indicated by a lack of significant development between L1 and L2. But starting from Level 2 onward the progression was relatively smooth and steady without further interruption.

Singleton adverbials, which started already with a relatively high level of performance (62.6%) at Level 1, showed remarkable progress within the first year, reaching 86.3% at Level 2. Thereafter, further gains there were, but insignificant when compared with the initial gain. The subjects' performance on singleton T-adverbials was far above that on the other two types. It is interesting to observe that the lowest level of singleton performance was already better than the highest level of clausal performance.

The order of difficulty among the three types of T-adverbials is as follows:

1. Singleton T-adverbial (84.7)
2. Phrasal T-adverbial (51.1)
3. Clausal T-adverbial (32.7)

6.5. Findings and Conclusions from Part I

With the results of analyses from sections 6.1 through 6.4, we can now attempt to verify the hypotheses and to answer the questions put forth at the beginning of Part I, which are reproduced below (cf. page 166):

H.1. There is no difference between the performance means of the subjects of the five secondary levels, regarding the use of tense-aspect and adverbials.

H.2. There are no distinct developmental stages across the secondary spectrum.

H.3. There are no distinct areas of difficulty in the use of tense and aspect.

Q.1. What do the developmental patterns look like when Cantonese learners of ESL in a formal setting come to learn and use tense-aspect and time adverbials? Are there distinct developmental stages across the secondary levels?

Q.2. Are there distinct areas of difficulty in the use of tense-aspect and time adverbials?

6.5.1. Verification of Hypotheses & Answers to Questions

a) The results of the ANOVA's in sections 6.1.1, 6.2.1, and 6.4.1 led to the rejection of Hypothesis 1 (H_o), which states that there is no performance difference between the subjects of the five secondary levels. The fact is that there was a highly significant level effect ($p < .001$) in the subjects' use of tense-aspect and time adverbials.

b) In a general way, the subjects' performance showed a 'continuous', upward progression in the use of tense-aspect and time adverbials from Level 1 through Level 5. The overall level means below and the ANOVA results cited in (a) above supported this observation:

		L1	L2	L3	L4	L5
T-A use	(LW)	22.9	31.6	48.7	50.7	67.4
T-A use	(FIB)	23.2	26.4	40.1	50.7	62.4
T-adverbials	(LW)	31.1	44.1	56.7	63.5	77.6

However, the developmental course did not always proceed in a uniform rate from one level to the next. We have seen that at a certain level, or during a particular period, subjects' performance showed remarkable, significant development, while at some other level(s) or in some other period(s), the development was not significant. The results of three sets of t-tests of significance between level means in Table 6.2, Table 6.19, and Table 6.31 indicated that two periods can be unambiguously identified to have been conducive to significant development of tense-aspect and time adverbials. The three sets of t-test results are summarily reproduced below for easy reference (the format is modified for comparative purposes). All values are in 1-tail probability.

		Level 1-L2	L2-L3	L3-L4	L4-L5
T-A use	(LW)	.012*	.001*	.352	.000*
T-A use	(FIB)	.176	.001*	.007*	.001*
T-adverbials	(LW)	.018*	.011*	.059	.000*

* $p < .05$

As can be seen from above, the two periods are Levels 2-3 and Levels 4-5. Development or progress was still made in the other periods, but not with the same degree of significance.

It is on the basis of such statistical information and distribution that four developmental 'stages' can be conceived: two with significant progress/development, and two others with less significant progress, as far as the use of tense-aspect and time adverbials is concerned.

On the basis of the t-test results, we reject Hypothesis 2 (H_o), which states that there are no distinct developmental stages across the secondary spectrum.

c) As regards the areas of relative difficulty in the use of tense and aspect, it was observed in subsection 6.3.5 that the Non-aspect group (A1+B1+C1) was found to be consistantly and significantly easier than the Aspect group (A2+B3+B2+B3) in the letter-writing data, and that in the fill-in-blank data the two groups interacted with Level, i.e. the Non-aspect performance was significantly better than the Aspect group at Levels 1 and 2, but the latter turned out to be significantly better at Levels 4 and 5. [For the t-tests, cf. Tables 6.7 and 6.24.]

What we can conservatively conclude from the results is that the Non-aspect group was easier than the Aspect group for our subjects at least in the first two/three levels.

Within the aspect group, it was noted (subsection 6.3.6) that in both the letter-writing and the fill-in-blank task, the subjects' performance on the Progressives (A2+B2) was better, in absolute scores (%), than the performance on the Perfectives (A3+B3). However, the t-test results (cf. Tables 6.8 and 6.25) indicated that the performance difference was statistically significant only at Level 4 for the letter-writing and the fill-in-blank task. In FIB, the difference was also significant at Level 3.

Here the only statement we can make about the relative difficulty is that the Progressives tended to be easier than the Perfectives from Level 2 onward.

As regards the relative difficulty of some individual tense-aspect categories, it was observed in subsection 6.3.7 that there was an interaction between Level and the Simple Past (B1) and the Simple Future (C1). The subjects' B1 performance was significantly better (hence 'easier') than C1 performance at Level 1, but toward Level 5, the reverse was the case: C1 performance was significantly better than B1 [cf. Tables 6.9 and 6.26].

The t-test results on the Simple Past (B1) and the Present Perfect (A3) [cf. Tables 6.10 and 6.27] also indicated that the subjects' B1 performance was significantly better than A3 performance at Levels 1 and 2, but at Levels 4 and 5, there was no significant difference in performance between the Simple Past and the Present Perfect. Once again, Level interacted with T-A categories.

What can be concluded from the facts reported in the last two paragraphs is that there were distinct areas of difficulty in using tense-aspect categories, but they interacted with the level(s) of proficiency.

On the basis of all the results reported in this subsection (c), Hypothesis 3 (H_o) is rejected, which states that there are no distinct areas of difficulty in the use of tense and aspect. The fact is that there were distinct areas of difficulty.

d) Leaving aside the experimental treatment of the data results, the question of the areas of relative difficulty in the use of temporal expressions can be answered through a less rigourous, rule of thumb approach: the rank order method.

Let us begin with time adverbials. We have established (cf. Table 6.32 in subsection 6.4.2) that the overall level means (%) for the three structural types of T-adverbials were: Clause (32.7%), Phrase (51.1%), and Singleton (84.7%). Put in descending order, the single-word adverbials were the easiest, followed by phrasal adverbials, and the clausal adverbials were the most difficult.

Coming to the relative difficulty of T-A categories, let us recapitulate the two orders of difficulty for LW and FIB (from Tables 6.6 and 6.23).

LW	FIB
A1 (85.5)	C1 (51.2)
B1 (50.2)	B1 (48.5)
C1 (49.7)	A2 (44.6)
A2 (43.0)	A3 (38.5)
A3 (35.6)	B2 (37.0)
B2 (24.6)	A1 (36.0)
B3 (12.5)	B3 (26.9)

It is clear that the Past Perfect (B3) was the most difficult, and the Simple Past (B1) the second easiest, of the seven.

The Simple Present (A1) showed the greatest positional discrepancy, followed by the Simple Future (C1). To get some order out of the two columns, A1 and C1 are temporarily removed; something interesting emerges:

A1	C1
B1	B1
C1	A2
A2	A3
A3	B2
B2	A1
B3	B3

The other five categories, in fact, show a matching order. It is also of interest to observe that within the Present and the Past Aspect, the Progressive came before the Perfective, collaborating with the earlier general finding on aspect group members (cf. section 6.3.6).

If we now return C1 to the list, our task is to determine its placement: before B1 or after B1. On the basis of the percentage scores both in the LW and the FIB task, we would tend to place C1 above B1. Now we have an order of 'difficulty' for six T-A categories: C1, B1, A2, A3, B2, and B3. Taking into account the observation made in the last paragraph, we can derive a more general order of difficulty.

The Simple, non-aspect group	(B1 and C1)
The Progressive group	(A2 and B2)
The Perfective group	(A3 and B3)

This group ordering is a rather tentative one because the positional status of the Simple Present (A1) remains to be determined.

To attempt to break the deadlock for A1 placement, a non-target-like use analysis was performed, which examined the non-obligatory contexts in which the Simple Present occurred. Table 6.35 presents the results of the analysis based on the letter-writing data (cf. Appendix 17).

Table 6.35 Frequency Distribution of A1 in Non-obligatory Contexts

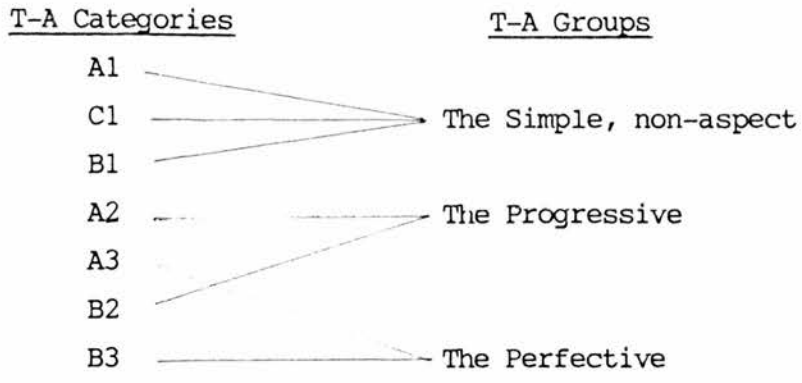
	A1	A2	A3	B1	B2	B3	C1	Error Total	%
L1	121	16	9	121	8	20	17	191	61.2
L2	169	11	10	136	4	32	13	207	55.1
L3	234	9	16	99	1	7	8	140	37.4
L4	337	9	16	108	2	20	18	173	33.9
L5	374	12	14	85	-	8	11	130	25.8

The results showed that at Level 1, of all Simple Present uses, 61.2% of the time were employed in contexts it should not have been used —— this, of course, led to incorrect use. Conversely, we may say that of all A1 uses at Level 1, the subjects were correct 38.8% of the time. Below are the converted figures:

Level	Target-like-use (%)
1	38.8
2	44.9
3	62.6
4	66.1
5	74.5
$\bar{X}$	57.3

Overall, the Simple Present (A1) was used 'target-like' 57.3 percent of the times, compared with 85.5% correct in obligatory-context use. There was indeed a big difference.

On the basis of the 'target-like-use' result (57.3%), the Simple Present is reinstated to its top position in the combined order of difficulty. The final picture of the relative difficulty of different T-A categories and groups are as follows:



e) We established earlier in subsection (b) that the subjects' use/performance in tense-aspect showed a continuous upward progression, and that four developmental stages could be identified and characterized in terms of the degree/rate of progression. The periods/stages between Levels 1 & 2 and between Levels 3 & 4 were, in general terms, less marked for significant development; the periods between Levels 2 & 3 and between Levels 4 & 5 were important stages for development.

The 'performance range' analyses in section 6.1.4 also established that at any one level or stage, the subjects' performance was variable, exhibiting intra-group variation. The extent of variation was partly determined by specific T-A categories. For example, there was a smaller intra-group variation, relatively speaking, in the use of the Past Progressive and the Past Perfect; variable performance featured prominently in the use of the Present Perfect, the Simple Past and the Simple Future.

In short, our subjects moved along a 'developmental continuum', with well-defined interlocking stages [not in linguistic terms, but in terms of the degrees/rates of development].

6.5.2. Summary and Conclusion of Part I

1. There was significant performance difference between the subjects of the five secondary levels in the use of tense-aspect and time-adverbials. (Hypothesis 1 rejected)

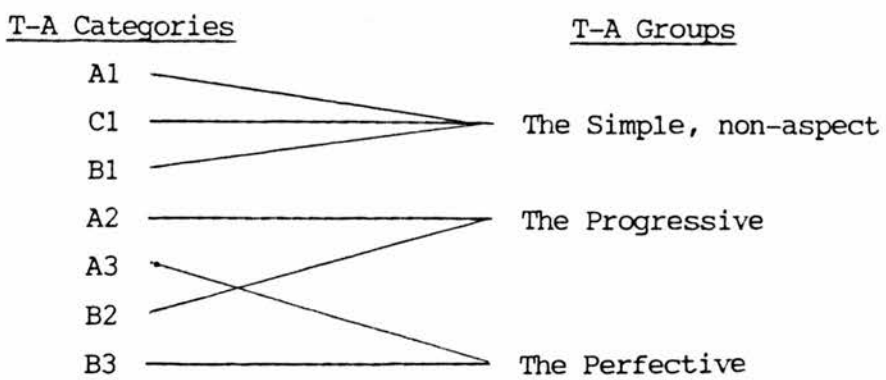
2. There were distinct developmental stages across the secondary spectrum. (Hypothesis 2 rejected)

3. There were distinct areas of difficulty in the use of tense and aspect. (Hypothesis 3 rejected)

4. When our subjects came to learn and use tense-aspect and time adverbials, they followed a course of consistent, continuous progression which was characterized as having four broad, interlocking stages. Stages 1 and 3 were less marked for significant development, while Stages 2 and 4 were marked for significant development.

5. At any one level or stage, subjects exhibited variable performance. The consistency in upward progression and performance variation exhibit the interplay between 'systematicity' and 'variability'.

6. The relative difficulty of the different T-A groups/categories were as follows:



Part II: Five Specific Analyses (pp.223-264)

Part II presents results of five quantitative (and qualitative) analyses of the letter-writing data, dealing with specific issues related to either tense-aspect or time adverbials. They were aimed at answering the questions and testing the hypotheses below:

Questions

3. What are the patterns of error? Are they relatable to particular level(s) of proficiency?

4. Is there a role for the learners' mother-tongue in second language use? If at all, is it developmentally based?

5. Is the use of some communication strategies (e.g. 'message abandonment', 'message restructuring', etc.) developmentally based?

Hypotheses

H.4. There is no relationship of error types in tense-aspect usage to the learners' proficiency level or stage of learning.

H.5. The learners' mother-tongue does not have any developmental role in their use of time adverbials.

H.6. The communication strategies of message abandonment and message restructuring are not developmentally based.

The five analyses in Part II are as follows:

Section 6.6. Verb-phrase Omission
Section 6.7. Verb-phrase Misformation
Section 6.8. Message Abandonment
Section 6.9. Message Restructuring
Section 6.10. Language Transfer

Before presenting the results, the first four terms should be distinguished and exemplified.

VP-omission, in this study, refers to 'the omission of (part of) the finite verb phrase that carries the tense and/or aspect, or the omission of the infinitive of a modal verb phrase.' Consider the following examples:

a) My academic results always poor.
b) I think you must rich.
c) I always thinking of you in these years.

a) is a full VP-omission, while (b) and (c) are examples of partial omission.

VP-misformation, in this study, refers to 'the wrong formation of the finite verb phrase because some or all of its components are ill-formed.' Consider the following examples:

d) My academic results have always be poor.
e) I am always think of you in these months.

In (d) and (e), the finite and the non-finite components for forming aspect are there, but one of them is an ill-form; hence misformation. The difference between VP-omission and VP-misformation is that in the former, at least one of the components is missing; the components, in the latter, are there.

Message abandonment (MA), in this study, refers to 'the learner's evasion in expressing an expected or intended message, in part or in full.'

[Tarone, Cohen and Dumas (1976) define 'message abandonment' as 'communication on a topic is initiated but then cut short because the learner runs into difficulty with a target language form or rule.' Their definition seems to be more appropriate for describing spontaneous, spoken interaction/situation, where cutting short a message or stopping in mid-sentence is quite a natural and common phenomenon or behaviour. But it seems inappropriate for our subjects' production situation, where they were instructed to finish a written task without interruption within a specified period of time. Hence the above definition.]

To understand better 'message abandonment' in this study, consider the following short extracts from the subjects' compositions. The intended or expected message was the underlined part of 'met a former schoolmate who(m) I had not seen for eight months' (cf. the 14 contexts in subsection 5.4.4).

a) Yesterday, I met Josephine at Central, I am so happy to see her again. She's a very girl, at my primary courses.

b) The day before yesterday, I met my best friend in primary school, Josephine. She was quite well now. (I remember that when I am studied in primary six ....)

c) The day before yesterday, I met Josephine —— our past classmates. We have not seen about eight months.

d) Two days ago, when I went home, I met Joseph whom I had not seen for eight months. (He is a person ....)

e) I saw one of my primary schoolmates, Josephine, who I haven't seen for eight months when I went home after school the day before yesterday.

Extract (a) is considered a case of message abandonment, because the required or intended message, i.e. 'a classmate whom I had not met for 8 months', has been left behind unexpressed by the subject concerned.

Extract (b) is, likewise, a case of message abandonment.

In extract (c), the required or intended message has been delivered, despite some grammatical inaccuracies, e.g. the tense and the phrasal adverbial formation.

Extract (d) is a case of perfect delivery of the intended message.

Likewise, extract (e) has delivered/expressed the intended message, in spite of the tense problem (and stylistic variation).

The difference between VP-omission and message abandonment is this: the former has to do with the absence of (part of) the finite verb phrase; the problem is at the linguistic, structural level and is 'local' to the VP. The latter, on the other hand, has to do with the absence of (a part of) a message; the problem is on the semantic, propositional level and is more 'global' (i.e. it usually involves a number of elements of which the verb phrase is the most focal, important one).

Message restructuring (MR), in this study, refers to 'the learner's modification or adjustment of (part of) the original, intended message (as evidenced in his surface expressions).'

[Faerch and Kasper (1983b:50) consider 'restructuring' as a communication strategy 'used whenever the learner realizes that he cannot complete a local plan which he has already begun realizing and develops an alternative local plan which enables him to communicate his intended message without reduction.' (underlining added). They take 'restructuring' to be linguistic restructuring or re-programming (e.g. 'my father's sister' for 'aunt').

The definition used in the present study is closer, in spirit, to Váradi's (1983) notion of 'message adjustment', which refers to the second-language learner's inability to linguistically formulate his intended message or original meaning and his subsequent adjustment of meaning 'to bring it in line within the sphere of his encoding capabilities. This adjustment of meaning usually involves sacrifice of the OMn (i.e. original meaning), loss of precision or it may lead to a complete shift of the optimal meaning.' (op. cit. p.83) (underlining added)

An important point to note is that Faerch and Kasper as well as Váradi assume the learner's linguistic insufficiency as a precondition/prerequisite for adjustment or reduction —— a point we shall return to.]

To distinguish what is and what is not 'message restructuring' in this study, consider the following short extracts from the subjects' compositions. The intended message, on this occasion, is "I have invited Joseph(ine) and some other former classmates to come to my house next Saturday afternoon at 2' (c.f. 5.4.4).

a) (I prepare for next week's test.) Next Saturday two o'clock I call Josephine and some old classmates to see a movie. (If you have a time. I hope you go.)

b) ~~I=invented~~ Josephine and three of our primary schoolmates will come to my house next Saturday two o'clock.

c) This is time that I should invite you to participate the meeting which was took part in my home on the next Saturday.

d) Next Saturday I shall invited Joseph and a few friends which you know to have a meeting in my home. Paul wish you will go with us.

e) (I cannot always bury myself in the books. Activities are very important to me.) So I invite Josephine and my three primary schoolmates to go to my home at 2 o'clock in the following Saturday.

f) (I am just prepare for the test next week.) Would like to see film with Joseph, my classmates and I on Saturday.

Extract (a) is not considered a case of message restructuring because the meaning here is rather distant from 'having invited Josephine and some classmates to come to my house'. It is therefore regarded as a case of message abandonment, as far as the intended message is concerned.

Extract (b) is considered a case of message restructuring. As it stands, the final version does not say whether Josephine and the primary schoolmates go on their own initiative or upon invitation; it could be either. However, the deleted part at the beginning helps to tip the balance on the latter. In fact, (b) is a clear and interesting case of message restructuring as a result of the learner's uncertainty about the spelling of the verb 'invited'.

Extract (c) is a marginal case of message restructuring, with some grammatical and structural errors in the expression. The basic, intended propositional content is there (i.e. 'invitation to come to my house', but the person being invited is different from the intended message (nowhere else in the composition were Josephine and other classmates being mentioned).

Extract (d) is a clearer case of message restructuring: instead of having invited Joseph and a few friends to come and meet at my house next Saturday, the invitation is to be extended to them next Saturday ('next Saturday I shall invited').

Extract (e) represents a faithful delivery of the original,

intended message. So it is neither a case of message restructuring nor one of message abandonment.

Finally, extract (f), like extract (a), is considered a case of message abandonment.

The difference between 'message restructuring' and 'message abandonment' is whether the basic message, of which the verb phrase is the focus, is retained/reformulated in a different shape, or whether it is left behind unsaid. Involved in this distinction are some thorny, analytical problems, which will be discussed later.

Researchers have written or reported on VP-omission, VP-misformation, message abandonment and message restructuring, but not many of them have examined them from a developmental perspective. The analyses in Part II are attempts to do just that.

Before proceeding to examine the data, we should remind ourselves that VP-omission and VP-misformation data/measures were based on all the finite verb-phrases, whereas data for message abandonment and message restructuring analyses were based on the 14 built-in finite verb-phrase contexts, and data for language transfer were based on 4 adverbial contexts (cf. 5.4.4 and 5.4.5).

6.6. Verb-phrase Omission

The data for VP-omission analysis were obtained by going through the subjects' compositions and picking out the finite verb phrases which satisfied the omission criteria described in Part II Introduction and Section 5.4.1.

The absolute number of omissions produced by the subjects can be found in Appendix 13. Table 6.36 shows the level means for the five academic levels:

Table 6.36 Level $\bar{X}$'s for VP-omissions

L1	L2	L3	L4	L5
1.63	1.27	0.63	0.27	0.20
(49)	(37)	(19)	(8)	(6)

Bracketted is the absolute number of omissions for that level

On average, there were less than two omissions per subject at Level 1, and just 0.2 omission per subject at Level 5, and there was a steady downward trend. An analysis of variance (SPSSX 1.0) across the 5 levels was performed and the result indicated that there was a significant level effect ($p < .001$). To determine the nature of development, t-tests of significance (from the same program: SPSSX 1.0) between the level means were performed. The results indicated that none of the differences were significant ($p > .05$). To explore this further, only means from low, mid, and high (i.e. Levels 1, 3 and 5) were subjected to t-tests again. The results are shown in Table 6.37.

Table 6.37 t-test Between Level $\bar{X}$'s (VP omission)

Level(n)	$\bar{X}$	S	t	df	1-tail p
1 (30)	1.633	1.81			
			2.57	58	.007**
3 (30)	0.633	1.29			
			1.93	58	.029*
5 (30)	0.200	0.24			

* $p < .05$ ** $p < .01$

The results of the t-tests indicated that there were significant differences between the level means. This means that there was a significant reduction of omission errors as the learners moved up to higher proficiency levels.

Qualitative Results

As Table 6.36 shows, the number of omissions (or 'omission errors' as some would call them) is not big. But the interesting point to note is that they were developmentally related to the learners' levels of proficiency.

An examination of the omission cases revealed that there were some linguistic contexts which seemed to be more conducive to omission errors, if at all.

The most favourable linguistic context for VP-omission for our subjects was VP + Predicative Adj (cf. last paragraph of 2.4.6). Below are some examples:

a) Her English very good.
b) I sure that you are well.
c) My results until unsatisfactory. ('until' for 'still')
d) I very glad if you come with us in next Saturday.
e) A few classmates and me very friendly.

As is clear from the examples, the 'linking Be' was omitted before adjectives or adjectival phrases functioning as predicative complement to the subject NP. And the adjectives/adjectivals were all from the so-called 'gradable' or 'scalar' class (Quirk et. al. 1972; Li and Thompson 1981). In Cantonese (and Chinese in general), the great majority of adjectives can function as the VP or its head. [When a (gradable) adjective is the only VP element, it is almost always modified by an adverbial intensifier, which is, most of time, the adverb hou (i.e. 'very').]

Another context that attracted a number of omissions was VP + Adverbial Complement/Adverbial.

f) Now I in Kau Yan College.
g) I think it nearly two years.
h) I have studied in HFT College which near my house.
i) I could learn more knowledge which outside the book.
j) Wong Po and Lee Sing both in Kau Yan College with me.

All the underlined parts, except in (g), are prepositional phrases functioning as adverbial complements. The underlined part in (g) is a noun phrase also functioning as adverbial.

Most of the verbs omitted were the 'linking Be' before prepositions like near, in, and outside. We may recall our brief discussion of 'coverbs' in Chinese (cf. 3.6.3.1). Coverbs are words that can partly behave like verbs, and partly like prepositions. Some coverbs may appear in sentences without being preceded by the main verb, since they ARE 'verbs' themselves in these contexts. Near in (h) and in in (j) in the Cantonese versions will be used as locative coverbs. [In Cantonese, when a coverb co-occurs with the main verb, its 'prepositional force' is strong; without the main verb, its 'verbal force' is strong.]

The third context which attracted a sizable number of omissions was V + NEG + NP, e.g.

k) You no opportunity go to school.

l) I would not opportunity change to this school.

m) I wouldn't opportunity to study at secondary school.

n) May be I could not opportunity to secondary school.

It is interesting to see that the verb or its non-finite component was consistently omitted. To understand this problem, consider the following Cantonese sentences:

i) ngo yau gei wui
'I have chance/opportunity'

ii) ngo mou gei wui
'I no chance/cpportunity'

In Cantonese, the positive-negative contrast of the 'existential'/ 'possessive' HAVE is (yau: 'have') and (mou: 'have not'/'do not have'). Here mou is a lexical verb meaning 'have not' or 'do not have'. Now observe two other Cantonese sentences:

iii) ngo ho nʌng yau gei wui

'I may have chance'

iv) ngo ho nʌng mou gei wui

'I may no/not chance'
(i.e. I may not have a chance)

Notice the transliteration of sentence (iv). The Cantonese mou ('not'/ 'no') is equivalent to the English 'have not'/'have no'.

Related to the V + NEG + NP context is the one V + NEG + V, e.g.:

o) We not seen for eight months

p) I never seen her for eight month

What was omitted in (o) and (p) is the finite part have. There were signs that the learners who produced them were aware of the 'perfective' requirement by using the past participle seen. Their failure to use have might have been the result of equating mou (the correspondence with no, not or never) to have not.

Finally, two other groups of omissions should be mentioned. One is exemplified in (q) and (r):

q) I have studying in KYC.

r) If I had not known him, I think I would not promoted to study secondary school.

Examples like (q) and (r) were produced by Level 4 and Level 5 subjects; there were not many errors of this kind.

The second group of omissions is rather heterogeneous. Some examples are shown below:

s) I and you no looking.

t) Please to mine.

u) First term academic results how

v) On the lesson not attendant.

These examples largely come from Level 1 or Level 2 learners, and reflect their inadequacy in vocabulary and syntax.

The distribution of the six categories of omission is shown in Table 6.38.

Table 6.38 Frequency distribution of VP Omission Types

Omission Type	L1	L2	L3	L4	L5
VP + Pred. Adj	14	15	6	3	-
VP + Adv Comp	9	4	4	-	2
VP + NEG + NP	9	5	7	-	2
V + NEG + V	4	6	-	-	-
Complex VP	-	-	-	5	2
Others	13	7	1	-	-

As can be seen from Table 6.38 the lower level subjects showed a greater variety of omission types on top of higher frequency.

Another observation is that VP + Pred. Adj, VP + NEG + NP, and VP + Adv Comp were the linguistic contexts most conducive to VP-omission, if at all.

Finally, there were certain types of VP or VP contexts in which omission is related to the level of proficiency.

Summary

It has been demonstrated through statistical analysis that VP-omission in our sample of subjects was developmentally based. Omission decreased with greater proficiency.

We have also shown that there were certain linguistic contexts which attracted more omissions than others did.

Although we did not explicitly argue for the transfer position in the course of discussion, the three specific 'linguistic comparisons' on Predicative Adjective Complement, Adverbial Complement and the Negation of Existential/Possessive Have, together with the learners' data examples strongly suggested that structural transfer might be at work.

6.7. Verb-phrase Misformation

'VP-misformation' is a wrong construction of the finite verb phrase because some or all of its components are ill-forms. (For a distinction between VP-omission and VP-misformation, see Part II Introduction.)

The data for VP-misformation analysis were collected by going through all finite verb phrases appearing in the subjects' compositions. The absolute number of VP-misformations produced by the subjects can be found in Appendix 14.

Based on the subjects' scores, the overall level means were computed, and the results of the computation are presented in Table 6.39.

Table 6.39 Level $\bar{X}$'s for VP-misformations

L1	L2	L3	L4	L5
4.97	4.13	3.07	3.17	1.47
(149)	(124)	(92)	(95)	(44)

Bracketted is the absolute no. of misformations for that level

The number of inaccurate verb phrases ranged from about 5 per subject at Level 1 to about 1.5 per subject at Level 5. An analysis of variance (SPSSX 1.0) across the five levels revealed a highly significant level effect ($p < .001$), indicating that VP-misformation was clearly related to the subjects' stage of learning and development. To determine the nature of development between levels, t-tests of significance (from the same program) were performed on the level means. The results indicated that the differences between Levels 1 and 2, Levels 2 and 3, and Levels 3 and 4 were statistically not significant ($p > .05$), but the difference between Levels 4 and 5 was significant ($p = .015$). To explore this further, t-tests were performed on the means of the low, mid, and high levels (i.e. Levels 1,3 and 5). The results are reported in Table 6.40.

Table 6.40 t-tests Between Level $\bar{X}$'s (VP misformation)

Level (n)	$\bar{X}$	S	t	df	1-tail p
1 (30)	4.97	3.34			
			2.31	58	.012*
3 (30)	3.07	3.02			
			2.03	58	.024*
5 (30)	1.47	3.08			

* $p < .05$

The results of the t-tests indicated that the differences between the high, mid and low means were significant at 0.05 level. This suggests that there was a significant reduction of VP-misformation errors as the learners moved from the lower to the higher levels.

Qualitative Results

In the ensuing discussion, we shall examine only three major groups of VP-misformation from a developmental perspective. The items are grouped under three head-words: Have, Modal and Be.

1. Have

Included in the have group are examples of the following kinds:

a) I haven't write to you for a long time. Two days before, I have see eight month no see friend.

b) Suddenly I met eight month haven't to see a Primary Section school's schoolmate.

c) I think you have studying in Form One now.

d) I saw a friend that I haven't saw for eight months.

e) I though that you have been forgot him.

f) I have not been seen you a long time.

The examples represent the following ill-formed structures:

		Type
Have + (NEG +)	V	a
	V (to-infinitive)	b
	V ing	c
	V ed1	d
	been + ed1	e
	been + ed2	f

(ed1 means past form; ed2 means past participle form)

The frequency distribution of the six types of HAVE misformations are presented in Table 6.41.

Table 6.41 Frequency Distribution of Have Misformations

Type	L1	L2	L3	L4	L5	%
a	9(+1)	24(+2)	8	15(+2)	4(+2)	71.2
b	4	1	1	1	-	7.5
c	1	-	-	1(+1)	(1)	4.3
d	-	1	4	2	1	8.5
e	-	1	1	-	-	2.1
f	-	(1)	1	1	2(+1)	6.4

All figures in brackets indicate the past form of Have

As is clear from Table 6.41, Type (a) was by far the most frequent misformation (71.2%). It is interesting to note the two peaks for this misformation: Level 2 and Level 4. It will be recalled that the periods from Levels 2 to 3 and from Levels 4 to 5 were the time for significant development. It would seem natural that subjects at these levels were actively trying out their 'hypotheses' about language use.

It is also important to emphasize that 67 subjects out of 150 considered at least once that Have/had + V was the form for the Perfective. This point will be taken up again when we examine the development of the Perfective Section 6.14.

Another point that may be of interest is the fact that within type (f), 50% of the misformations were produced by Level 5 subjects. The have not been seen type was, of course, too complex a structure for the low proficiency subjects to produce or attempt to produce; hence no or very few errors of this type.

Finally, it may be noted that the have saw and the have (not) to see were the second and third highest misformation types within the Have domain.

2. Modal

The following are examples from this group of misformations.

a) They would not communicated with the new classmates.
b) I just can talking with the teacher.
c) You must as soon as possible to give me answer.
d) What subject you would be study in Form 4.

These examples represent several structural types:

		Type
Modal +	V ed1	a
	V ing	b
	V (to-infinitive)	c
	be + V	d
	others	e

(Note: ed1 means past tense form)

The frequency distribution of the five Modal categories of misformation are presented in Table 6.42.

Table 6.42 Frequency Distribution of Modal Misformations

Type	L1	L2	L3	L4	L5	%
a	3(+1)	2	5(+4)	5(+3)	3(+4)	50.8
b	-	1	1	4(+2)	1(+1)	17.0
c	4	2	5	1	-	20.3
d	1	-	1	(2)	-	6.8
e	1	-	2	-	-	5.1

All figures in brackets indicate past modals

The most frequent Modal misformation was type (a). 12 of the 30 modals in (a) were the past modals, e.g.,

I would asked her to help me.
I would teached her.

while the other eighteen were present modals. The great majority of the modal misformations resulted from the subjects' attempt to produce the third section of the composition instructions (see Table 5.3). Note that subjects from higher levels produced more type (a) errors than the lower subjects. This might be due to the fact that more type (a) constructions were produced by higher level subjects. Like type (f) in the Have misformation, the type (a) modal construction was relatively complex, and formulating a correct complex message was quite a task for the learners.

3. Be

Let us observe a few examples of the Be-related misformation errors:

a) I am just prepare my test.

b) ..... to participate the meeting which was took in my home on the next Saturday.

c) I am not seen you again.

d) ..... and we are going to taking film.
I am to invited Josephine to come.

The above examples have the following structural descriptions:

		Type
Be + (NEG+)	V	a
	V ed1	b
	V ed2	c
	Others	d

(Note: ed1 indicates past tense form;
ed2, past participle)

The frequency distribution of the four types of Be-related misformation is shown in Table 6.43.

Table 6.43 Frequency Distribution of Be Misformations

Type	L1	L2	L3	L4	L5	%
a	34(+12)	18(+10)	12(+12)	9(+7)	4(+1)	69.2
b	5(+3)	2(+2)	4(+7)	3(+4)	2(+5)	21.5
c	7	3	-	-	-	5.8
d	3	1	-	1	1	3.5

All figures in brackets indicate the past form of Be

Altogether 172 misformations were identified for these four Be types. As is clear from Table 6.43, the Be + V predominated, and was followed by the Be + V ed1.

These two misformation types were quite prevalent across the five levels; and despite being smaller in number, type (b) misformation was more persistent. It started out with 8 at Level 1, and there were still 7 at Level 5.

Type (a), Be + V, outnumbered all the other types put together. Here are a few more examples:

1. I am miss you very much.
2. If I am not make friend with him ....
3. My first-term results were only get the pass mark.
4. When I was not understand, my teacher ....

As regards type (b) misformation, Be + V ed1, the difference is that the lexical verb is now tensed, as in the following:

a) But latter she was helped me to solve the problems. Then we were became a good friends.
b) English, Chinese and History were all got grade C.
c) My results was not good. I was repeated one year.

The basic problem remains very much the same as Be + V, the redundant Be. The examples do show that these subjects were fully aware of the past marking.

It is important to note that these misformation examples do not show any intended use in the Progressive or Perfective. There are, of course, other Be + V and Be + V ed1 misformations which were intended for the Progressive and the Perfective functions.

Type (c) misformations were mainly the are not seen type. Here the intended message should be in the Perfective. This category was produced at Levels 1 and 2 only.

Summary

Results of the VP-misformation analyses have shown that it was significantly related to the subjects' levels of proficiency. The higher level they reached, the fewer the number of VP misformations they produced.

An analysis of Have-misformations showed that have/had + V dominated this misformation group (71.2%). Across the 5 levels, 67 subjects considered at least once that have/had + V was the form for the Perfective. Levels 2 and 4 appeared to show more Have-misformations than the other Levels. Perhaps they were actively exploring the language, since it was shown that these two periods were significant for development. Very complex misformations tended to be committed by the advanced learners.

An analysis of Modal misformations showed that Model + V ed1 represented about half of them (e.g. can teached, would asked, etc.). They were produced largely by higher level subjects. The modal + V to-infinitive misformations, on the contrary, were produced more by lower level subjects.

An analysis of Be-misformations showed that Be + V and Be + V ed1 were the major error types. Together, they constituted over 90% of the Be-misformations.

6.8. Message Abandonment (MA)

'Message abandonment' (MA), it will be recalled, refers to 'the learner's evasion in expressing an expected or intended message, in part or in full.'

The data collection procedure has been described in subsection 5.4.4, and the way 'message abandonment' was identified as well as its relations with VP-omission and 'message restructuring' have been discussed in Part II Introduction. They will not be repeated here.

In the present analysis of MA, the compositions from High, Mid and Low levels (i.e. Levels 5, 3, 1) were examined against the fourteen contexts. The absolute number of MA's for each subject can be found in Appendix 15. Table 6.44 below shows the level means for message abandonment.

Table 6.44 Level $\bar{X}$'s for Message Abandonment

L1(N=30)	L3(N=30)	L5(N=30)
2.13	1.80	1.23
(64)	(54)	(37)

All figures in brackets indicate total number of that level

The mean number of MA's for Level 1 was 2.13 per subject, and for Level 5, 1.23. These results were examined by an analysis of variance to determine the developmental significance of the means for MA across the three levels. The result was not significant at the 0.05 level ($p = 0.110$). This indicated that despite the apparent decrease (in message abandonment) in inverse proportion to proficiency level —— 2.13, 1.80 and 1.23 —— the level effect was not statistically significant when all the data were considered.

However, a t-test of significance between Level 5 and Level 1 means produced a result that showed significance at 0.05 level ($p = 0.037$). This indicated that there was still a significant developmental difference between the High and the Low group in the message abandonment behaviour.

Qualitative Results

The frequency distribution of message abandonment (MA) in the fourteen contexts at each of the three levels is shown in Table 6.45. (For the fourteen contexts, please refer to subsection 5.4.4.)

Table 6.45 Frequency Distribution of MA at 3 Levels

Context	L1(N=30)	L3(N=30)	L5(N=30)
1	3	1	-
2	2	1	-
3	3	1	3
4	1	-	-
5	5	11	5
6	6	9	4
7	8	3	2
8	3	8	6
9	3	8	7
10	-	1	4
11	5	3	1
12	2	2	2
13	11	3	2
14	12	3	1
Total	64	54	37

As is clear from Table 6.45, certain contexts appeared to have attracted more MA's from particular group(s). Contexts 13 and 14, for example, met with MA's from over one-third of Level 1 subjects. The contexts did not appear to be demanding; here they are: 'hope that you will reply/give me an answer as soon as possible.' A review of the data showed that many of these Level 1 pupils did not understand verbs like answer or reply. The following are a few examples:

a) You as soon as possible for me.
b) I hope that you as soon as possible me.
c) I want you as soon as possible.

The 'abandonment' of the verb hope was linked to the expression as a whole, as exemplified in (a).

Abandonment in Contexts 13 and 14 by higher level subjects was not due to their linguistic ignorance or inability, but to their ignoring the instructions and their own discourse planning. Consider the two extracts below:

a) I'm preparing a test on next week. I have a lot of things to talk to you. Perhaps I would write to you later. Bye-bye.

b) ... next Saturday. Afterwards, we will go to cinema. Will you go with us. I am preparing the test in next week. Good-bye.

It is quite clear from their writings that they had the ability to produce the desired or 'intended' message, but were not inclined to develop the letter in the desired direction.

Let us return to Table 6.45. The next 'centre of gravity' for message abandonment seems to be Contexts 5 - 9; they include two Past Progressives (B2), two Past Perfects (B3) and one Simple Past (B1). These five Past contexts together accounted for 56.8% of all MA cases. It should be noted that the distribution was not confined to one specific level; rather they spread over all levels. It appears that linguistic inability/insufficiency need not be the major explanation for message abandonment. Consider the following relatively long extract:

> ... Although I could not finish my last examination with flying colours, I would not let it discourage me ...
>
> By the way, I met Joseph last Saturday. Do you remember him? As a matter of fact, I ~~think~~ would never forget him in the rest of my life. I am sure that you know how poor my results were from Primary One to Primary Five. Had it not been for Joseph, I think I am still a stupid and lazy student ...

This subject omitted Contexts 5 and 6, i.e. 'returning home from school' and 'meeting a friend who I had not seen for eight months'. Her 'message abandonment' could be caused by anything except inability to formulate the message.

Having said that, we should note that there were indeed cases of message abandonment resulting from a genuine lack of linguistic ability. One subject from Level 1, for example, produced the following extract:

After school I go home met Mary.
P 六 Mary help solve me homework.

His language belonged to a variety of 'basilang'. Here, he 'abandoned' Contexts 6 ('a friend I had not seen for eight months'), 7 ('when studying in Primary Six'), and 8 ('results had been unsatisfactory'). For Context 7, the subject used a Chinese character 六: luk ('six') together with P (i.e Primary) to stand for Primary Six.

To derive some general pattern from the distribution Table, the results of each pair of contexts were put together, and the scores for the three levels summed. The summary figures for message abandonment are shown in Table 6.46 below.

Table 6.46 Summary figures for MA in T-A Contexts

	A1	A2	A3	B1	B2	B3	C1
Level 1	14	2	8	4	13	9	14
Level 3	4	2	4	8	14	17	5
Level 5	5	4	1	7	7	10	3
Sum Total	23	8	13	19	34	36	22

The figures unambiguously show that the Past Perfect (B3) and the Past Progressive (B2) were the contexts that attracted more message abandonment. Note the relatively even distribution of MA cases in these two contexts over the high, mid and low levels.

The contexts in which the subjects showed the least tendency to 'abandon' were the Present Progressive (A2) and the Present Perfect (A3).

Summary

'Message abandonment' was shown to be statistically non-significant across the High, Mid and Low levels of proficiency. However, the results of a t-test between Level 1 and Level 5 mean for MA showed that the difference was significant.

The results of the qualitative analyses showed that the Past Perfect (B3) and the Past Progressive (B2) contexts tended to attract more message abandonments, while the Present Progressive (A2) and the Present Perfect (A3) contexts tended to attract fewer message abandonments, with the other T-A contexts somewhere in-between.

It was demonstrated and exemplified that linguistic insufficiency need not be the major explanation for message abandonment.

6.9. Message Restructuring (MR)

'Message restructuring' (MR), it will be recalled, refers to 'the learner's modification or adjustment of (part of) the original, intended message (as evidenced in his surface expressions).'

The data processing procedure has been described in subsection 5.4.4, and the way 'message restructuring' was identified and its relation with 'message abandonment' have been discussed in Part II Introduction.

In the analysis of message restructuring, as in the message abandonment analysis, we looked at the compositions from Levels 1, 3, and 5 focusing on the fourteen contexts. The number of MR's for each subject can be found in Appendix 16. The level means for MR are shown in Table 6.47.

Table 6.47 Level $\bar{X}$'s for Message Restructuring (MR)

L1(N=30)	L3(N=30)	L5(N=30)
0.87	1.37	1.97
(26)	(42)	(59)

Bracketted figures indicated total number for that level

The mean number of message restructuring (MR) for Level 1 is less than one, 0.87, rising to 1.37 at Level 3, and to 1.97 at Level 5. These results were examined by an analysis of variance to determine the developmental significance of the means for MR across the levels. The result of ANOVA was significant at 0.01 level ($p = 0.006$), indicating that there was a significant effect for level. t-test of significance between means was performed to determine the significance between levels. The results of the t-tests are presented in Figure 6.48.

Table 6.48 t-tests Between Level $\bar{X}$'s for MR

Level(n)	$\bar{X}$	S	t	df	1-tail p
1 (30)	0.87	1.224			
			-1.57	58	.061
3 (30)	1.37	1.245			
			-1.85	58	.035*
5 (30)	1.97	1.273			

* $p < .05$

The t-tests results showed that the difference between Level 1 and Level 3 was not significant at 0.05 level, but the difference between Level 3 and Level 5 was significant ($p = 0.035$).

It may be concluded that message restructuring was related to levels of proficiency and the major effect came from higher levels.

Qualitative Results

The frequency distribution of message restructuring (MR) in the fourteen contexts at each level is shown in Table 6.49. (For the fourteen contexts, please refer to subsection 5.4.4., page 159.)

Table 6.49 Frequency Distribution of MR in Fourteen Contexts

Context (T-A)		L1 (N=30)	L3 (N=30)	L5 (N=30)
1	(A3)	2	1	1
2	(A2)	-	-	1
3	(A1)	-	1	1
4	(B1)	-	-	1
5	(B2)	2	1	2
6	(B3)	-	-	1
7	(B2)	1	1	2
8	(B3)	-	3	2
9	(B1)	3	3	9
10	(A2)	-	2	8
11	(A3)	2	9	6
12	(C1)	4	6	3
13	(A1)	6	6	8
14	(C1)	6	9	14
Total		26	42	59

A glance at Table 6.49 suggests that message restructuring (MR) gravitated towards the second half of the contexts, starting in fact from Context 9. The six contexts (9 - 14) accounted for 81.9% of all (127) MR's.

Individually, Contexts 13 and 14 ranked top in attracting message restructuring. (It will be recalled that the same two contexts attracted many message abandonments from Level 1 subjects.) The spread of MR's was relatively even over the three levels, but Level 5 had the largest number. Here are a few examples:

a) [Would you like to come to my home on next Saturday?] I hope you will tell me the result as soon as possible.

b) I am looking forward to hearing from you soon.

c) Please give me a reply after you have received this letter.

d) I haven't your answer.

(a) is considered a successful minor message restructuring, which involved ' will tell me the result...'. (b) and (c) represent two successful examples of message restructuring, despite the absence of 'hope'.

(d) reveals the subject's difficulty in conveying the intended message. Even with the content-framework as reference, the message cannot be successfully decoded, despite the presence of a key word, 'answer'. It is therefore assumed that heavy adjustment/drastic restructuring probably took place, but the attempt was a failure.

The point to note is that in studying message restructuring, we must also distinguish successful and unsuccessful restructuring, as exemplified by (b & c) and (d) respectively. This two-step analysis does not apply to the study of message abandonment. Table 6.50 shows the success-rates in message restructuring in Contexts 13 and 14 over the three levels.

Table 6.50 Success-Rates (%) in MR's over Three Levels

Context	L1	L3	L5
13	83.3% (5/6)	83.3% (5/6)	100% (8/8)
14	66.7% (4/6)*	100 % (9/9)	100% (14/14)

*(MR's successful/no. of MR's)

It is clear that the higher level subjects had a better success-rate in message restructuring than the lower level subjects.

Let us return to Table 6.49. The next single context that attracted a large number of restructuring is No.11: 'I have invited Joseph(ine) and some other classmates...'. Since we have already discussed examples related to this context (cf. Part II Introduction), we shall not repeat them here. However, we should note that Level 3 subjects tended to restructure more in this context. An examination of the Level 3 examples revealed that some subjects were writing under their own initiatives in this last section of the letter. This might be a possible account not only for Context 11, but for 12 through 14 as well. The success-rates of MR in Context 11 for the three levels are shown in Table 6.51.

Table 6.51 Success Rates (%) in MR's over Three Levels

Context	L1	L3	L5
11	0.0% (0/2)*	44.4% (4/9)	66.7% (4/6)

*(MR's successful/no. of MR's)

Once again, the higher level subjects are shown to have enjoyed better success-rates in accomplishing message restructuring than the lower level subjects.

It must be emphasized that many of the successful restructuring attempts were, in fact, produced by the relatively proficient subjects (cf. examples [b] and [c] of this subsection), contrary to some common assumptions.

To look for some general pattern(s) in the distribution of MR's, the scores for each T-A pair of contexts are combined, and the scores for the three levels summed. The summary figures are shown in Table 6.52.

Table 6.52 Summary Figures for MR in 7 T-A Contexts

	A1	A2	A3	B1	B2	B3	C1
Level 1	6	0	4	3	3	0	10
Level 3	7	2	10	3	2	3	15
Level 5	9	9	7	10	4	3	17
Total	22	11	21	16	9	6	42

The first point to note is, of course, the high frequency of message restructuring in the Simple Future (C1) context. The next relatively high frequency contexts are the Simple Present (A1) and the Present Perfect (A3). It should be pointed out again that the major sources of input to these three highest frequencies come from Contexts 11, 12, 13, and 14.

It is interesting to note that the contexts having the lowest frequencies of message restructuring are the Past Perfect (B3) and the Past Progressive (B2).

Summary

'Message restructuring' was shown to be significantly related to the level of proficiency of the learner group, particularly at the higher levels.

The results of the 'success-rate analysis' of message restructuring (Tables 6.50 and 6.51) showed that the higher level subjects tended to be more successful in restructuring attempts than the lower level subjects.

Distributional analysis revealed that the Past Perfect (B3) and the Past Progressive (B2) contexts tended to attract the least number of message restructuring, while the Simple Future (C1), the Simple Present (A1) and the Present Perfect (A3) attracted the highest frequencies in message restructuring.

The level means indicated that the higher level subjects tended to attempt more message restructuring than did the lower level subjects. It was also demonstrated that 'linguistic deficiency' (Váradi 1983) need not be the major controlling factor influencing the message restructuring behaviour.

6.10 Language Transfer (LT)

The term 'language transfer' refers to 'the process in which the second-language learner uses knowledge of his native language for learning or performance purposes.'

['Mother-tongue influence' is a terminological variant revived by Corder (1983), referring to the influence of the learner's native language (NL) system on his second language performance. He argued that this term was more appropriate and inclusive than 'language

transfer' because the learner's NL can influence his second-language behaviour without actually transferring any NL rules or patterns, e.g. 'avoidance'. Gass (1983) made a similar distinction between 'language transfer' and 'transfer'.]

The procedure by which cases of language transfer were determined or identified was discussed in subsection 5.4.5.

In the present analysis of language transfer (LT), the subjects' time-adverbial performance was examined against the four designated adverbial contexts (cf. 5.4.5). They are (to repeat):

1. for a long time
2. Two days ago
3. for eight months
4. next Saturday afternoon at 2 (o'clock)

Table 6.53 presents the number of language transfer (LT) cases in each context at each level of proficiency.

Table 6.53 No. of LT's in each Adverbial Context at each Level

Adv'l Context	L1(N=30)	L2(N=30)	L3(N=30)	L4(N=30)	L5(N=30)
1	4	6	2	2	0
2	13	11	6	3	4
3	14	8	1	3	0
4	18	6	8	2	0
Total	49	31	17	10	4

It can be seen that the number of LT cases decreased over time as the subjects became more proficient in the target language. To determine the developmental trend across the five levels, an analysis of variance was performed, and the result was significant at 0.01 level ($p = 0.002$). This indicated that there was a significant effect for level.

To determine the difference between levels, t-tests were performed and the results of the t-tests are given in Table 6.54.

Table 6.54 t-tests of Significance Between Level $\bar{X}$'s for LT

Level	(Contexts)	$\bar{X}$	S	t	df	1-tail p
1	(4)	12.25	5.91			
				1.41	6	.104
2	(4)	7.75	2.36			
				1.72	6	.068
3	(4)	4.25	3.30			
				1.04	6	.169
4	(4)	2.50	0.58			
				1.44	6	.100
5	(4)	1.00	2.00			

* $p < .05$

As can be seen, none of the t-tests results were significant. The results were a little surprising. To explore this further, only means from the low, mid and high levels (i.e. Levels 1, 3 and 5) were subjected to t-tests again. The results are given in Table 6.55.

Table 6.55 t-tests Between High, Mid and Low $\bar{X}$'s for LT

Level	(Contexts)	$\bar{X}$	S	t	df	1-tail p
1	(4)	12.25	5.91			
				2.36	6	.028*
3	(4)	4.25	3.30			
				1.68	6	.072
5	(4)	1.00	2.00			

* $p < .05$

The results of the second set of t-tests indicated that the difference between Low and Mid level was statistically significant ($p = 0.028$), while that between Mid and High level was not significant. The results suggested that language transfer occurred largely at the Low level.

Qualitative Results

On the basis of the total number of language transfer (LT) cases at each level found in Table 6.53, a percentage of TL can be derived, using the following formula:

$$\frac{\text{total no. of LT}}{\text{4 contexts x 30}} \times 100$$

The percentage results are as follows:

	L1	L2	L3	L4	L5
(%)	40.8	25.8	14.2	8.3	3.3

It can be seen that TL percentages changed over the five year period, from about 40% at Level 1 to a mere 3% at Level 5, as far as the time-adverbials are concerned. Overall, the percentage of language transfer was 18.5%.

Similar to the results from message abandonment (MA) and message restructuring (MR), language transfer (LT) was also context-sensitive. Below are the overall means for the four contexts.

Context	Overall $\bar{X}$ (%)
1	9.33
2	24.67
3	17.33
4	22.67

The adverbial context that had the fewest LT cases was the first one, with less than 10% of LT overall. This is understandable because it is a quite common and frequent expression. It should be noted that the frequency of LT in context 1 was quite low even with the lower level subjects (cf. Table 6.53).

The context that attracted the highest percentage of language transfer turned out to be the relatively 'simple' adverbial phrase two days ago. The transfer effect was quite persistent, extending into Level 5, which produced before two days and after two days. The results for this context should come as a surprise for many researchers. It is also interesting to note that confusion between 'before' and 'after' still existed in some relatively advanced learners (cf. 2.5.4).

Context 4 was 'equally attractive' for LT. As has been exemplified and discussed in subsection 5.4.5, the acceptability, in Cantonese, of the adverbial complex specifying the future being placed at the sentence-initial position, having a perfective VP within its scope, was probably a cause for boosting up the LT rate. This was coupled with a tendency to place the adverbial complex pre-verbally. The whole problem lasted for the first three years.

Language transfer in Context 3 had a lot to do with the placement of Cantonese relative clauses. But this transfer problem lasted for about two years only.

Summary

Language transfer was shown to be significantly related to the level of proficiency. There was a significant difference in LT behaviour between the Low level subjects and subjects from the Mid and the High level.

The overall percentage of language transfer (LT) was, in the context of the time adverbials under review, 18.5%. Developmentally, LT started off with about 40% at Level 1 and gradually decreased to an insignificant 3% at Level 5.

It was found that the 'principle of structural complexity' need not be the most important condition for language transfer [compare two days ago and next Saturday afternoon at 2 (o'clock)]. An apparently simple structure might, sometimes, have more 'charm' in attracting LT.

6.11. Findings and Conclusions from Part II

With the results of the five specific analyses from sections 6.6 through 6.10, we are in a position to verify the hypotheses and to answer the questions put forth at the beginning of Part II, which are, to recapitulate, as follows:

H.4. There is no relationship of error types in tense-aspect usage to the learners' proficiency level or stage of learning.

H.5. The learners' mother-tongue does not have any developmental role in their use of time adverbials.

H.6. The communication strategies of message abandonment and message restructuring are not developmentally based.

Q.3. What are the patterns of error? Are they relatable to particular levels of proficiency or stages of learning?

Q.4. Is there a developmental role for the learners' mother-tongue in second-language use?

Q.5. Is the use of some communication strategies (e.g. 'message abandonment', 'message restructuring', etc. developmentally based?

6.11.1. Verification of Hypotheses & Answers to Questions

a) The results of the ANOVA's on VP-omission and VP-misformation errors (Table 6.36 and Table 6.39) indicated that the two types of error were significantly related to the learners' levels of proficiency

or stages of learning ($p < .001$). Accordingly, Hypothesis 4 is to be rejected, which states that there is no relationship of error types in tense-aspect usage to the learners' proficiency level.

T-tests results further established that these types of error decreased significantly in inverse proportion to greater proficiency.

Distributional analyses of VP-omission errors (Table 6.38) and VP-misformation errors (Tables 6.41, 6.42 and 6.43) further indicated that specific types of errors were relatable to the learners' proficiency level(s). For example, 'partial omission' of complex VP's were committed exclusively by subjects at Levels 4 and 5 (cf. Table 6.38). It was also noted in connection with Table 6.42 that Modal + Ved1 misformations were produced largely by subjects from higher levels, whereas Modal + Vto-infinitive misformations were produced largely by subjects from the lower levels.

b) Mother-tongue influence was only hinted at in our analyses and discussion of some VP-omission. Proper experimental treatment of language transfer was applied to time adverbial data derived from contexts (cf. section 6.10).

The result of an ANOVA on language transfer errors (section 6.10) indicated that there was a significant effect for level. T-tests on the transfer error means from the Low, Mid and High levels (cf. Table 6.55) produced results which indicated that the difference between the Low and Mid levels was significant ($p = 0.028$); but the difference between the Mid and High levels was not significant ($p > 0.05$).

On the basis of the results, Hypothesis 5 can be rejected. Language transfer was found to be significantly related to the subjects' level of proficiency; it was significantly related to subjects at the lower levels.

Developmentally, transfer errors began with 40.8% at Level 1, decreased to 14.2% at Level 3, and came down to a mere 3% at Level 5. It was, therefore, developmentally based.

c) The result of ANOVA on 'message abandonment' (section 6.8) did not indicate a developmental/level effect ($p > 0.05$) when all the data from the High, Mid and Low levels were considered. A t-test between the High and Low means did show a significant difference in the 'message abandonment' behaviour. On the whole, however, we accept Hypothesis 6, as far as message abandonment is concerned, which states that 'message abandonment' is not developmentally based.

The qualitative analysis of message abandonment revealed that the Past Perfect (B3) and the Past Progressive (B2) contexts tended to attract more message abandonments, while the Present Perfect (A3) and Present Progressive (A2) contexts tended to attract the fewest message abandonments.

d) The results of ANOVA on 'message restructuring' (section 6.9) indicated that there was a significant effect for level ($p < 0.01$). We are therefore obliged to reject Hypothesis 6, as far as message restructuring is concerned. It was developmentally based.

T-tests of significance between the Low, Mid, and High levels indicated that the difference between the Low and the Mid (i.e. Levels 1 and 3) was not significant ($p > 0.05$), but the difference between the Mid and the High was significant ($p = 0.035$).

It may be concluded that message restructuring was related to levels of proficiency, and the major effect came from the higher levels, i.e. the higher level subjects tended to attempt more message restructuring than the lower level subjects did; and, further more they also tended to be more successful in their attempts.

The qualitative analysis showed that the Past Perfect (B3) and the Past Progressive (B2) contexts tended to attract the lowest number of message restructuring, while the Simple Future (C1), The Simple Present (A1), and the Present Perfect (A3) attracted the highest frequencies in message restructuring.

e) An important finding from the message abandonment and restructuring analyses is that linguistic deficiency or insufficiency need not be the major explanation for, or major controlling factor influencing, the message abandonment or restructuring behaviour.

6.11.2. Summary and Conclusions of Part II

1. There was a significant relationship of error types in tense-aspect usage to the learners' proficiency level. (Hypothesis 4 rejected)

2. The learners' mother-tongue did play a developmental role in their use of time adverbials. Mother-tongue influence was found to be significantly related to learners at the lower levels. (Hypothesis 5 rejected)

3. The communication strategy of message abandonment was found not to be developmentally based. (Hypothesis 6 accepted)

4. The communication strategy of message restructuring was found to be developmentally based. It was significantly related to learners from the higher proficiency levels. (Hypothesis 6 rejected)

5. Linguistic deficiency or insufficiency need not be the major explanation for the message abandonment or message restructuring behaviour.

6. Throughout Part II analyses, certain linguistic contexts were found to be more, or less, conducive to particular interlanguage behaviour (in terms of VP-omission, VP-misformation, language transfer, message abandonment, and message restructuring).

Part III: Four Qualitative (Error) Analyses (pp.265-304)

Part III presents results of four qualitative (and quantitative) analyses of errors from both the letter-writing (LW) and the fill-in-blank (FIB) data. The analyses were aimed at answering the following questions (raised in section 1.3):

Questions

6. Is it the case that the development and use of tense and aspect exhibits 'systematicity' and 'variability'?

7. How does the linguistic evolution of some tense-aspect and time-adverbial functions proceed?

The four analyses in Part III are as follows:

Section 6.12 (Non-)obligatory Context Analysis (LW).
Section 6.13 Response Analysis (FIB).
Section 6.14 Linguistic Development of the Present Perfect (LW).
Section 6.16 Linguistic Development of Two Durative Adverbials (LW).

The first three analyses deal with the use and development of the Present Perfect, and the fourth one dealing with the use and development of two 'durative' adverbials.

Before we present the results of the error analyses, we may recall that in our review of three tense-aspect studies, i.e. Cheng (1973), Mukattash (1978) and Morrissey (1980) [in subsections 2.4.1, 2.4.2, and 2.4.3 respectively], it was noted that the second and the third major tense-aspect confusion areas were related to the Present Perfect: specifically, the Present Perfect vs. the Simple Past/the Simple Present, and the Present Perfect vs. the Past Perfect. The 'confusion network' for the Present Perfect is diagrammatically represented in Figure 6.4.

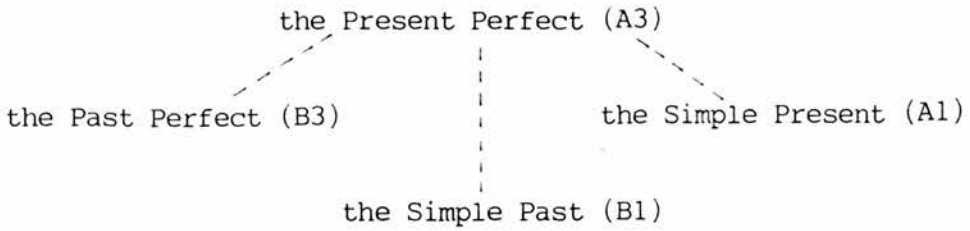


Figure 6.4 The Present Perfect Confusion Network

The first three analyses to be reported took Figure 6.4 as the point of departure.

6.12. (Non-)Obligatory Context Analysis of T-A Errors (LW)

In an 'obligatory context' analysis of T-A performance, we usually examine the contexts requiring a particular T-A category, say the Present Perfect (A3), and note the number of correct uses as well as the number of incorrect uses by other T-A forms (or ill-forms) in the Present Perfect contexts. In a 'non-obligatory context' analysis we would examine the occurrences of the Present Perfect in other tense-aspect contexts than its own —— the so-called 'non-target-like' uses of A3, which normally result in errors.

The analysis reported in this section adopted both analytical perspectives. However, it must be pointed out that for the present purposes, only errors assignable to the 7 T-A categories were included; other types of errors, e.g. misformations, omissions, etc., were not considered. They have been considered in previous sections (cf. 6.6 and 6.7).

The error data for the present analysis were derived from five tables on the frequency distribution of 7-tense errors based on the letter-writing (LW) task. The five error-distribution tables can be found in Appendix 17.

Table 6.56 below presents 7-tense error distribution in the Present Perfect (A3) obligatory contexts over the five academic levels, i.e. taking A3 column from each of the five tables in Appendix 17.

Table 6.56 Frequency Distribution of 7-tense Errors in A3 Contexts

	L1	L2	L3	L4	L5
A3	10	10	33	39	54
Error type					
A1	9	10	16	16	14
A2	-	-	-	-	-
B1	7	11	6	11	10
B2	-	-	-	-	-
B3	2	5	1	5	6
C1	-	-	-	-	1

All figures indicate absolute numbers

The row of figures for A3 (in Table 6.56) over the five levels represent the correct suppliances of the Present Perfect; all other rows of figures represent errors coming from particular tense-aspect categories. As can be seen clearly from Table 6.56, the major error types when attempting to produce A3 were the Simple Present (A1), the Simple Past (B1), and the Past Perfect (B3). These three error types corresponded exactly to what is suggested in Figure 4; no more and no less. We should also note the relatively even distribution of A1 and B1 errors over the five levels.

Another point worth observing is that the subjects at all levels of proficiency did not confuse the Present Perfect and the Present/Past Progressive. The Perfective and the Progressive(s) were kept distinct (cf. 3.5[c], p.116).

Before we make further observations, let us examine the non-target-like-use of the Present Perfect. The error data for the non-obligatory analysis of A3 were taken from the A3 row in each of the five tables in Appendix 17. Table 6.57 presents the error distribution of A3 in non-obligatory contexts over the five academic levels.

Table 6.57 Frequency Distribution of A3 Errors in Non-obligatory Contexts

	L1	L2	L3	L4	L5
A3	10	10	33	39	54
Other contexts					
A1			1	2	
A2				1	
B1	2	2	9	13	15
B2					
B3	5	3	14	21	20
C1					

All figures indicate absolute numbers

All rows except A3 represent non-obligatory contexts in which A3 should not have occurred but did in fact occur —— resulting in errors. It is clear that in general the two non-obligatory, non-required contexts to which the Present Perfect tended to generalize were the Simple Past (B1) and the Past Perfect (B3). The Simple Present (A1) which was used in the Present Perfect contexts (i.e. in the obligatory context analysis) did not have many incorrect Present Perfect uses in its own contexts.

It should be noted that the 'generalization' of the Present Perfect to the Simple Past and the Past Perfect contexts appeared to be more frequent from Level 3 onward.

The only case in which the Present Perfect was used in the Present Progressive context involved a reference to an imminent examination in the following discourse:

> Our second-term examination has come and at the first-term academic results was not very good .... You know that I am a lazy girl. When I have time I will go to sleeping. So I think I will have a bad result at the second term.

Summary

Results of both the 'obligatory context' (OC) and the 'non-obligatory context' (NOC) error analysis have, in general, confirmed previous observations that second-language learners of English often confused the Present Perfect with the Simple Past, the Past Perfect and the Simple Present.

The OC and the NOC analysis have also revealed a distinction hereto unobserved in the literature: the inequality of reciprocal influence between members in a confusion pair of T-A categories. For example, the confusion relationship between the Present Perfect (A3) and the Simple Present (A1) was rather skewed: A1 was often used in A3 contexts (cf. Table 6.56) but A3 was seldom used in A1 contexts (cf. Table 6.57).

The skewed relationship also occurred between the Present Perfect (A3) and the Simple Past (B1) at Levels 1 and 2, where the Simple Past was more often generalized to the Present Perfect contexts (Table 6.56) than was the Present Perfect to the Simple Past contexts (Table 6.57).

Similarly, it can be clearly seen that the Present Perfect was more often used in the Past Perfect contexts (Table 6.57) than the Past Perfect in the Present Perfect contexts (Table 6.56) at Levels 3, 4 and 5.

This skewed relationship between T-A members in confusion pairs will be discussed in Chapter Seven.

6.13. Response Analysis (FIB)

This section continues the examination of the subjects' use and development of the Present Perfect (A3), this time using error data based on the fill-in-blank (FIB) task.

The performance of the individual fill-in-blank (FIB) items, with the correct response percentage and the percentages of the 'top three' errors for each level can be found in Appendix 18. In the response analysis, only the results of the A3 group were used.

The seven A3 items in the FIB task are reproduced below for easy and quick reference [The item numbers indicate the original ordering in the test].

Item 5. [On the telephone]

John : Hello. May I speak to Mr. Wong, please?

Secretary : I'm sorry. You're too late to catch Mr. Wong. He (go) _____ out for lunch already.

John : That's all right. I'll try again later. Thank you.

Item 12. [At a party]

John : Excuse me. I don't think we (meet) _____ each other before? My name is John Wong.

Paul : How do you do. I'm Paul Chan.

Item 22. Although we have lived in this area for two years, we (not get) _____ to know many people yet.

Item 31. Dear Librarian,

I am very sorry to tell you that I (lose) _____ two books, which I borrowed from the library. I left them on a bus on my way home last Friday.

Item 37. ... After I arrived in London, I first went* around the city to find a flat to live ....

In these few weeks, I (make) _____ many English friends although my English is not very good. [*originally, blank No.36]

Item 41. [A police detective is questioning John]

Detective : Well, you said you saw Mr. Chan yesterday. Have you seen him since then?

John : Today, you mean? No, I (not see) _____ him today.

Item 46. Paul : Are you going swimming with us?

John : No, I can't. I (break) _____ my leg.

The results of a preliminary analysis of the correct response percentages of the seven items at each of the five levels are presented in Table 6.58.

Table 6.58 A3 Item Performance (%) Over Five Levels (FIB)

Item	L1	L2	L3	L4	L5	Row Total
5	31.0	43.3	46.7	66.7	99.0	56.7
12	24.1	13.3	36.7	63.3	67.9	41.1
22	37.9	36.7	40.0	40.0	35.7	38.1
31	24.1	16.7	30.0	36.7	57.1	32.9
37	6.9	10.0	13.3	33.3	53.6	23.4
41	20.7	20.0	40.0	46.7	57.1	36.9
46	20.7	16.7	33.3	66.7	67.9	41.1

Across the five levels, the 'easiest' and the 'most difficult' of the seven Present Perfect items were No.5 and No.37 respectively. The two differed in their performance ranges (31.0 - 96.0 vs. 6.9 - 53.6), but they were similar in terms of the developmental trend. They were the only items in A3 that did not show any sign of 'regression'.

An item that did not show development at all over the five year period was No.22 (37.9% at Level 1, and 35.7% at Level 5).

Items 12 and 46 showed steady development only after Level 2.

Taking the seven items as a whole and reading the 'row totals', one is justified to suggest that the performance of A3 items was not particularly impressive, from the lowest of 23.4% to the highest of 56.7%.

With this preliminary understanding, we proceed to examine the type(s) of error made in each item context. To focus our examination and commentary, only the first, 'top three' errors will be reported. However, comments on other (types of) errors will be made if these errors throw lights on the issue at hand.

Item 5

Table 6.59 below shows the top three errors for Item 5 over the five academic levels.

Table 6.59 Top Three Error (with %) for Item 5 (FIB)

Level	Correct(%)	1st Error (%)	2nd Error (%)	3rd Error (%)
1	(31.0)	go(es)(24.1)	is going (13.8)	went (10.4)
2	(43.3)	went (26.7)	is going (13.3)	go(es) (3.3)
3	(46.7)	went (20.0)	has went (10.0)	goes/is going(6.7)
4	(66.7)	went (10.0)	has went (6.7)	is going (3.3)
5	(96.0)	went (3.6)	--	--

It is clear from above that the Simple Past (went), the Present Progressive (is going) and the Simple Present (go[es]) were the major error-types for Item 5. However, the Simple Present error was committed by subjects of Levels 1, 2 and 3 only.

In Item 5, the only temporal specification available was the 'time-relationship' adverbial already, which expresses "by or before a given or implied time" (cf. Quirk et al. 1972:498). One conceptual problem with already is that it can co-occur or be used with a past or a present verb form, and this problem was reflected in some subjects' variable responses. Level 1 subjects tended to produce more present-tense-related responses than subjects from other levels.

The subtle distinction between the 'exclusive' past and the 'inclusive' past was recognized by less than 50% of the subjects at Levels 1, 2, and 3. The percentage rose to 66.7% at Level 4, and by Level 5, practically all subjects except one were able to supply the correct A3 form has gone.

It is interesting to note that subjects overall showed their 'best performance', relatively speaking, in Item 5 context. One possible explanation is that the adverb(ial) already together with the Present Perfect (A3) was formally introduced (and practised, naturally) in Primary Five and again in Secondary/Form 2. So all subjects had had some exposure to and knowledge about the already-Present Perfect co-occurrence. Another possible reason is that this A3-already item is a relatively standard one that can easily be found in course-exercises or remedial material.

Item 12

The top three errors (and their percentages) for Item 12 at the five levels are presented in Table 6.60.

Table 6.60 Top Three Errors (with %) for Item 12 (FIB)

Level	Correct(%)	1st Error (%)	2nd Error (%)	3rd Error (%)
1	(24.1)	met (30.0)	meet (24.1)	are met (6.9)
2	(13.3)	met (26.7)	meet (23.3)	are meeting(13.3)
3	(36.7)	meet (23.3)	met (13.3)	have meet (6.7)
4	(63.3)	met (13.3)	had met(10.0)	am met (6.7)
5	(67.9)	met (7.1)	had met (7.1)	have meet(7.1)

It can be seen that the predominent error-types for the subjects were the Simple Past (met) and the Simple Present (meet). It is interesting to note that the Simple Present error was committed by subjects of Levels 1, 2 and 3 only.

For subjects of Levels 1, 2 and 3, there were two major confusion areas, with reference to the present A3 context: the Simple Present (A1) and the Simple Past (B1). The relatively high percentage of the met error for subjects of Levels 1 and 2 was probably due to the fact that these uninformed learners took the adverb before as the temporal cue, meaning "prior to the moment of speaking, we didn't know each other — because we 'did not meet' before". The other uninformed subjects at the lower levels, who opted for the meet error, might have been misled by the tense of the neighbouring verbs, which were all in the Simple Present; or they simply lacked the competence or control over tense-aspect.

For subjects of Levels 4 and 5, the confusion errors, if at all present, were largely the Simple Past (B1) or the Past Perfect (B3).

The 13.3% of Level 2 subjects making the error am meeting is beyond reasonable interpretation. What is clear is that they all came from Level 2 of the New Territories school.

The percentages for the errors am met at Level 1 and am meet at Level 4 were relatively small in this context.

Item 22

The top three errors (with their percentages) for Item 22 over the five levels are shown in Table 6.61.

Table 6.61 Top Three Errors (with %) for Item 22 (FIB)

Level	Correct(%)	1st Error (%)	2nd Error (%)	3rd Error (%)
1	(37.9)	don't get (10.4)	did not get (6.9)	are not get (6.9)
2	(36.7)	had not get (10.0)	have not get(10.0)	are not get(10.0)
3	(40.0)	did not get (13.3)	had not get (6.7)	don't get (6.7)
4	(40.0)	had not got (16.7)	did not get (10.0)	don't get (10.0)
5	(35.7)	did not get (25.0)	don't get (25.0)	have not get(7.1)

This item is interesting in a number of ways. First of all, it elicited altogether 26 error-types, a number no one would have anticipated. For the sake of interest, the 26 response error-types (many with just one token per type) are listed below:

get, got, already got, are get, are got, are not get, are not got, are not getting, could not get, don't get, did not get, did not got, had not get, had not got, has not get, has not getting, have getting, have not get, have not gotten, not get, not getting, not got, were not get, were not got, will not get.

Level 1 subjects produced 11 error-types; Level 2 also produced 11 error-types; Level 3 produced 12 error-types; Level 4 produced 7 error-types; and Level 5 produced 4 error-types. There were many overlaps.

To impose an order on the highly variable responses, the frequency distribution of each error type across the five levels was plotted, and the results of 10 overall top-frequency errors are shown in Table 6.62.

Table 6.62 Ten Overall Top-frequency Errors in Item 22 Context

Error type	L1	L2	L3	L4	L5	Overall Frequency
did not get	2	-	4	3	7	16
don't get	3	-	2	3	7	15
had not got	-	3	2	5	-	10
have not get	-	3	2	2	2	9
are not get	2	3	1	-	-	6
get	-	2	1	2	-	5
are not getting	2	1	-	-	1	4
are not got	1	2	-	-	-	3
not got	-	1	1	-	-	2
got	2	-	-	-	-	2

All figures are in absolute numbers

The pattern emerging from Table 6.62 is clearer and more readable than that from Table 6.61. It is interesting to observe that the error-types having a 2-figure frequency were the Simple Past (did not get), the Simple Present (don't get) and the Past Perfect (had not got). Equally interesting is the fact that L5 subjects concentrated on two types of errors: the Simple Past and the Simple Present, the latter being not usually committed by Level 5 subjects.

Returning to Table 6.61, it may be noted that 25% of the Level 5 subjects used the Simple Past (B1), and another 25% used the Simple Present (A1). B1 would have been an acceptable response if not for the presence of the time-relationship adverbial yet, which related the 'getting to know people' event to the 'moment of speaking'. Those subjects who used the Simple Past possibly overlooked the meaning specified by yet and interpreted the subclause as indicating an 'exclusive past' event.

On the other hand, those subjects who used the Simple Present possibly took 'get to know' to mean 'know'. In that case, the Simple Present would be deemed acceptable, as in

> Although we have lived in this area for
> two years, we don't know many people yet.

The problem facing the subjects/learners here was/is two-fold: first, yet can in fact co-occur with the Simple Present (A1) or with the Present Perfect (A3); second, what determines the possible co-occurence partly lies with the nature and semantic properties of the verb (phrase) at issue. It is little wonder that Level 5 subjects' performance was as poor as, or even worse than, Level 1 subjects' when they failed to take yet into account, or when they failed to note the semantic difference between certain verbs or verb phrases.

Note the non-development pattern as reflected in the correct percentages in Table 6.61.

Item 31

The top three errors (with percentages) for Item 31 are shown in Table 6.63.

Table 6.63 Top Three Errors (with %) for Item 31 (FIB)

Level	Correct(%)	1st Error (%)	2nd Error (%)	3rd Error (%)
1	(24.1)	lost (34.5)	lose (17.2)	had lost (6.9)
2	(16.7)	lost (33.3)	lose (16.7)	had lost (10.0)
3	(30.0)	lost (26.7)	lose (13.3)	had lost (13.3)
4	(36.7)	lost (26.7)	had lost (23.3)	have lose (6.7)
5	(57.1)	had lost (25.0)	lost (10.7)	have lose (3.5)

The subjects' correct percentages indicated that this was a low performance item, ranging from 20% plus or minus at Levels 1 and 2 to 57% at Level 5.

A small addition exercise of summing the error percentages for each error-type should indicate that overall the Simple Past lost ranked first, the Past Perfect had lost second, and the Simple Present lose third.

It should be noted that within the 'top three errors', the Simple Past and the Past Perfect were both found at all levels of proficiency, but the Simple Present lose was committed, basically, by subjects from Levels 1, 2 and 3. (There was one lose error in Level 4, but none in Level 5.)

Errors from Levels 4 and 5 gravitated towards the Simple Past and the Past Perfect.

In Item 31, as in other A3 items, many subjects failed to see the 'current relevance' dimension of a past event (see subsection 3.2.2), and therefore simply used a past form.

Item 37

The top three errors (with percentage) for Item 37 are shown in Table 6.64.

Table 6.64 Top Three Errors (with %) for Item 37 (FIB)

Level	Correct(%)	1st Error (%)	2nd Error (%)	3rd Error (%)
1	(6.9)	made (51.7)	make (24.1)	have make (3.5)
2	(10.0)	made (30.0)	make (23.3)	am making (10.0)
3	(13.3)	made (33.3)	had made (10.0)	was making(10.0)
4	(33.3)	made (26.7)	make (13.3)	had made (6.7)
5	(53.6)	made (28.6)	have make(14.3)	am making (3.5)

The subjects' correct percentages indicated that this was another low performance item. In fact, overall it was the worst of the seven A3 items, with only 23.4% across the levels.

Subjects from all levels had, without exception, the Simple Past made as their No.1 error. Note that the error percentage at each level was relatively high: over 50% at Level 1 and about 30% at Levels 4 and 5.

One possible explanation is that the preceding linguistic context was marked with the Simple Past ('... After I arrived in London, I first ....), and this past meaning was taken on when deciding on the T-A form for make.

Another possible explanation is that these subjects interpreted the time-adverbial 'in these few weeks' as specifying a period of time with distinct past reference. In this case, the past form followed logically.

The second high-frequency error was the Simple Present make. In Table 6.64, only Levels 1, 2 and 4 are shown to have committed this error. In fact, Level 3 also had 6.7% for the make error (since it

was not in the 'top three', the percentage is not shown in the table). Subjects who committed this error might have interpreted the adverbial 'in these few weeks' as having a present meaning, a hypothesis strengthened by the tense used in the subsequent clause 'although my English is not very good'. The point to note is that although the Simple Present form was used by some subjects of Levels 1 to 4, the heavier use, nevertheless, fell on Levels 1 and 2.

The third 'highest frequency' error was the Past Perfect had made, which was produced by some Level 3 and Level 4 subjects, but, curious enough, not by Level 5 subjects, a few of whom produced have make instead.

Item 41

The top three errors (with percentage) for Item 41 are shown in Table 6.65.

Table 6.65 Top Three Errors (with %) for Item 41 (FIB)

Level	Correct(%)	1st Error (%)	2nd Error (%)	3rd error (%)
1	20.7	don't see (20.7)	am not see(20.7)	am not seeing (6.9)
2	20.0	don't see (23.3)	am not see(10.0)	am not seeing(10.0)
3	40.0	don't see (16.7)	am not see(16.7)	didn't see (10.0)
4	46.7	am not see(16.7)	don't see (10.0)	am not seeing (6.7)
5	57.1	don't see (21.4)	have not see(7.1)	didn't see (3.6)

The Simple Present don't see was undoubtedly No.1 error, followed by am not see (No.2) and am not seeing (No.3). The interesting thing about these error types is that they are all related to the present reference.

It should be noted that these subjects did not appear to be influenced by the preceding remark/question 'Have you seen him since then?' Instead, they probably focused on the local adverbial today and interpreted it as a 'present time' specification. [In Cantonese gʌm yʌt ('today') is a present time specification, to be contrasted with kʌm yʌt ('yesterday') and ting yʌt ('tomorrow').] These subjects failed to take the more'global' context into account and interpret today in the light of the previous linguistic/discourse context. 'I don't see/am not seeing him today' could be an acceptable response, but with a meaning quite different from the original, intended one.

Item 46

The top three error types (with %) for Item 46 are presented in Table 6.66.

Table 6.66 Top Three Errors (with %) for Item 46 (FIB)

Level	Correct(%)	1st Error (%)	2nd Error (%)	3rd Error (%)
1	(20.7)	broke (20.7)	break (13.8)	have broke (10.3)
2	(16.7)	broke (23.3)	am breaking (16.7)	break (10.0)
3	(33.3)	broke (16.7)	had broken (16.7)	break (10.0)
4	(66.7)	broke (13.3)	had broken (16.7)	was broken (3.3)
5	(67.9)	had broken (14.3)	broke (7.1)	had been broken (3.6)

Item 46 produced the 'usual', 'common' error pattern: the Simple Past (broke), followed by the Simple Present (break) and by the Past Perfect (had broken).

For this item, the subjects had to rely on their own pragmatic knowledge to work out the time reference, there being no explicit time specification given. Since the mishap took place in the past relative to the moment of speaking, some subjects would consider it logical to use the Simple Past, without realizing that in English (at least in British English) the 'current relevance' should be considered as well.

The use of the Simple Present form was confined to some subjects of the first three levels. This might be a matter of language proficency.

The use of the Past Perfect was confined to subjects at the higher levels.

Summary

To summarize section 6.13, the following points may be noted.

First, the subjects' performance overall on the Present Perfect (A3) items was not particularly impressive, with a range from the lowest of 23.4% to the highest of 56.7%.

Secondly, the major error types (in terms of frequency) were, in order, the Simple Past (B1), the Simple Present (A1), and the Past Perfect (B3). The error data supported observations from previous research that second-language learners often confused the Present Perfect (A3) with the Simple Past, the Simple Present and the Past Perfect.

Thirdly, learners/subjects of all proficiency levels were liable to committing the Simple Past errors, i.e. using the Simple Past when attempting to produce the Present Perfect.

Lower level or less proficient subjects, however, had a much greater tendency to commit the Simple Present errors and correspondingly a lesser tendency to commit the Past Perfect errors when attempting to produce the Present Perfect.

Higher level or more proficient subjects, on the other hand, had a greater tendency to commit the Past Perfect errors and a lesser tendency to commit the Simple Present errors when attempting to produce A3.

Fourthly, the notion of 'present relevance' appeared, in general, to be conceptually difficult for the subjects to grasp.

Finally, within the general pattern of the Present Perfect use just described above, variable patterns could occur, which might result from one or a combination of the following factors: the subjects'

previous knowledge of, or exposure to, the form(s) of tense and adverbial; the semantic property and co-occurrence possibility of the verb at issue; the subjects' perception and interpretation of the (linguistic) context, or their focus on the 'local' or 'global' discourse context; and the possible influence of the subjects' mother tongue.

6.14. Linguistic Development of the Present Perfect (LW)

This section reports the third and last of a series of examinations of the subjects' use and development of the Present Perfect (A3). The error data for this analysis were derived from the subjects' performance in the two built-in Present Perfect contexts in the letter-writing (LW) task. The contexts are:

1. I / We haven't seen you / each other for a long time.

2. I've (already) invited Joseph(ine) and some other former classmates to come ....

The primary purpose of this analysis was to describe in some detail the erroneous forms used by the subjects at different levels to express the perfective function and at the same time to study how the learners developed the use of the Present Perfect as reflected in the two contexts. The subjects' erroneous responses in these two contexts can be found in Appendix 19. Table 6.67 summarizes the types of erroneous linguistic realizations of the A3 function.

Table 6.67 Erroneous Linguistic Realizations of A3 Function in 2 Contexts Over 5 levels

Erroneous Linguistic Forms	L1*	L2	L3	L4	L5	Total
1. am/are (not) V	10	2	-	-	-	12
2. are not (together)	-	1	-	-	-	1
3. no(t) V	2	1	-	-	-	3
4. V	5	3	7	4	3	22
5. do not V	-	3	3	1	-	7
6. cannot V	1	-	-	-	-	1
7. were not V	-	-	1	-	-	1
8. were not together	-	1	-	-	-	1
9. V-ed	5	5	2	6	5	23
10. never V-ed	-	-	1	-	-	1
11. did not V	1	1	1	-	-	3
12. could not V	-	-	1	-	-	1
13. have to V	1	-	-	1	-	2
14. had to V	1	-	-	-	-	1
15. had (not) V-en	2	4	-	3	5	14
16. have (not) been V-en	-	-	2	-	2	4
17. had (not) been V-en	-	-	-	1	1	2
18. have not been V-ing	-	-	-	1	1	2
19. had not V				1	1	2
20. have + X	5	7	5	3	-	20
21. X + V-en	1	4	3	1	-	9
22. miscellaneous/others	7	3	1	3	1	15
Error Total:	41	35	27	25	19	(147)

*N=60 (30 subjects x 2 contexts) at each level

All figures indicate absolute number of tokens

Before presenting the results, two descriptive categories should be noted, i.e. the have + X and the X + V-en. The two categories were derived from the two basic, obligatory components for the formation of the Present Perfect: the perfective auxiliary have and the past participle V-en. X stands for an ill-form other than have or -en. For example, 'have not see' and 'did not seen' would be classified under have + X and X + V-en respectively.

Several observations can be made, with reference to Table 6.67. The first observation is that there were well over twenty different kinds of erroneous linguistic forms employed for the expression of the Present Perfect (A3). [A point no longer surprising after noting the number of errors elicited by Item 22 of the fill-in-blank task —— 26 in all.]

Secondly, looking at the column total for each level (bottom row), we note that the subjects produced fewer errors as they moved up to the higher levels, from 41 at Level 1 down to 19 at Level 5.

Thirdly, reading the row totals (the right-most column), we can see that the error tokens centred round a few linguistic types/forms. These included Types 1, 4, 9, 15, 20, and 21. With the exception of Types 20 and 21, the other four are familiar error categories, i.e. the Be (NEG) V, the Simple Present (A1), the Simple Past (B1), and the Past Perfect (B3).

Fourthly, it is interesting to note that the distribution of the four familiar types of errors again followed the general pattern we have come across: errors related to the Present group tended to be produced or committed more often by lower proficiency subjects (cf. the top-left area of Table 6.67); errors related to the Simple Past were produced/committed by subjects of all proficiency levels; and errors related to the Past Perfect (and the complex perfective constructions) tended to be produced/committed more often by higher proficiency subjects (cf. Types 15 through 19).

Fifthly, focusing on the have + X and the X + V-en type, we can see that the former type was more than double the latter type of errors. And at any one level, there were more have + X (errors) than X + V-en errors. It will be recalled that in our analysis of VP-misformation (section 6.7 [1]), we noted the high frequency of the have + V type for the perfective function. The point at issue here is that there were more subjects recognizing have as the carrier of the perfective function than others taking V-en as the perfective carrier.

Sixthly, about half of the 'miscellaneous' errors were committed by Level 1 subjects (7 out of 15); errors such as 'no looking', 'are did see', 'intvention', 'will please', etc. indicated the lack of lexical and grammatical control typical of the low proficiency subjects.

To obtain a clearer, more focal picture of the linguistic development of the Present Perfect, some of the minor but related types were merged with the major types, thus reducing the number of error categories. The merging exercise produced seven error categories:

I. Be + (NEG+) V (Types 1 and 2)
II. (NEG+) V (Types 3, 4 and 5)
III. (NEG+) V-ed (types 9, 10 and 11)
IV. Have + X
V. X + V-en
VI. Had + (NEG+) V-en
VII. 'Complex Perfective' (Types 16, 17 and 18)

Error Types 6, 7, 8, 12, 13, 14, 19 and 22 were excluded from the exercise.

Table 6.68 shows the distribution of the seven merged error categories, together with the figures of target-like use (Category VIII), at each level.

Table 6.68 Frequency Distribution of Errors and Correct uses in 2 Contexts

	Error Category	L1	L2	L3	L4	L5
I.	Be + (NEG+) V	10	2	-	-	-
II.	(NEG+) V	5	6	10	5	3
III.	(NEG+) V-ed	6	6	4	6	5
IV.	Have + X	5	7	5	3	-
V.	X + V-en	1	4	3	1	-
VI.	Had + (NEG+) V-en	2	4	-	3	5
VII.	'Complex Perfective'	-	-	2	2	4
	Correct Use					
VIII	Have + V-en	8	10	24	30	36
	(%)	(13.3)	(16.7)	(40.0)	(50.0)	(60.0)

All figures indicate absolute number of tokens

A few 'developmental facts' can be gleaned from Table 6.68.

First, Be + (NEG+) V occurred only in the first two levels; in fact, it dropped dramatically at Level 2. The rejection was complete by Level 3.

Second, the (NEG+) V and (NEG+) V-ed errors were quite persistent, right up to the end of the developmental period under study. There were signs, however, that (NEG+) V was gradually rejected by more and more subjects (e.g. from ten cases at Level 3 to three cases at Level 5).

Third, Have + X and X + V-en were two of the mistaken rules used for realizing the Present Perfect at the first four levels. But more and more subjects rejected these two rules as they became more proficient. The two erroneous patterns were dropped by Level 5.

Fourth, Had + (NEG+) V-en was one of the wrong rules used right from Level 1, and the trend appeared to be on the increase, slightly though, as subjects moved higher up.

Fifth, although Be + (NEG+) V was dropped by Level 3, the 'Complex Perfective' pattern began to emerge at Level 3 and the trend was upward.

Sixth, the target rule Have + V-en was used by subjects in increasing number/percentage as they became more proficient, beginning with 13.3% at Level 1, moving to 40% at level 3, and reaching 60% at level 5.

Finally, subjects at any one level did not use just one rule at a time for the realization of the Present Perfect. Rather, the rules used for the expression of A3 were 'variable', and this variable performance/realization went on to Level 5 and beyond.

On the basis of the developmental facts observed above, a non-sequential developmental course or continuum for the Present Perfect [cf. subsection 6.5.1.(a)] over the 5 academic levels was inferred and plotted, and it is represented in Figure 6.5[a] (and [b] below):

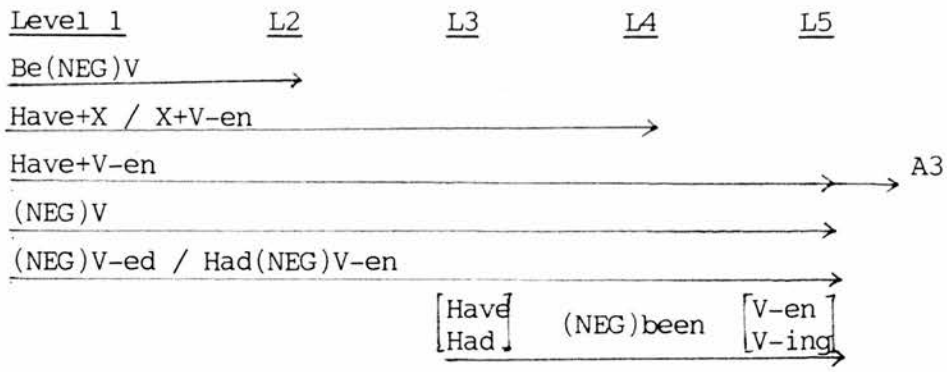


Figure 6.5[a] Development of the Present Perfect (A3)

Alternatively, the developmental facts may be represented as in figure 6.5[b].

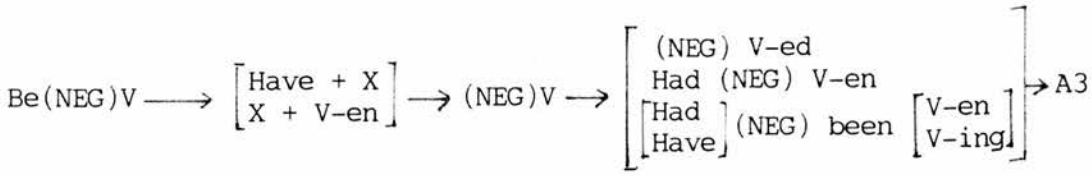


Figure 6.5[b] Development of the Present Perfect (A3)

The only comment that needs to be made about Figure 6.5[b] is that (NEG)V was placed before (NEG) V-ed on the basis of two considerations: (NEG)V was markedly decreasing towards Level 5, and it tended to be produced more at lower levels. (NEG) V-ed did not show either of the two signs.

6.15. General Summary of Sections 6.12, 6.13, and 6.14

1. The series of three separate yet related analyses of the development and use of the Present Perfect (A3), using different kinds of error data, showed convergent and supporting evidence for the Present Perfect-related confusion areas established by previous, independent tense-aspect investigations.

2. Dominant and consistent error patterns when attempting to produce/use the Present Perfect were the Simple Present (A1), the Simple Past (B1), and the Past Perfect (B3).

   Subjects of all levels of proficiency made the Simple Past errors.

Lower level/proficiency subjects had a much greater tendency to make the Simple Present-related errors but a lesser tendency to make the Past Perfect errors, when attempting to use the Present Perfect.

Higher level/proficiency subjects, on the contrary, behaved in the opposite direction: they had a greater tendency to make the Past Perfect-related errors but a lesser tendency to make the Simple Present-related errors.

The error patterns described in the last two paragraphs were quite consistent over various/different tasks and contexts, thus reflecting the use of some systematic interlanguage rules related to the level of proficiency. The evidence appeared to support the general claim that the learner's interlanguage is systematic and rule-governed (the notion of 'systematicity'). [cf. subsection 6.5.2.]

3. Having affirming the 'systematic' nature of the learners' language use, we must hasten to add that the subjects at any one level showed variable performance. The most convincing evidence came from the 'variable rules' they used for the realization/expression of the Present Perfect (cf. Figure 6.5[a], in particular, at the end of section 6.14; also subsection 6.1.4.3).

4. The general response patterns or tendencies described in (2) above could, at times, be 'upset' by one or a combination of the following factors:

   a) the subjects' previous knowledge of, or exposure to, the tense-aspect and adverbial form(s);

b) the semantic property of the verb and its co-occurrence possibility with specific adverbial(s);

c) the subjects' perception or interpretation of the linguistic context, or their focus on the 'local'/'global' discourse context;

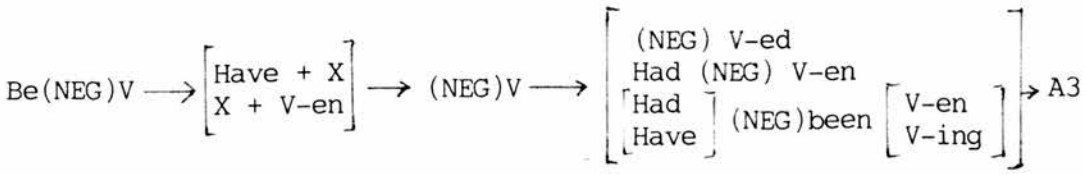
d) the possible influence of the subjects' mother-tongue.

5. Overall, the Present Perfect performance in the fill-in-blank (FIB) task was not remarkable, which ranged from 23.4% at Level 1 to merely 56.7% at Level 5 [cf. Table 6.58]. The Present Perfect performance in the two letter-writing contexts was similarly unimpressive: from 13.3% at Level to 60.0% at Level 5. The performance ranges indicated that it was a difficult tense-aspect category for the subjects to master.

6. The notion of 'current relevance' appeared, in general, to be conceptually difficult for the subjects to grasp.

7. The 'obligatory context' and 'non-obligatory context' analyses revealed a very interesting and important distinction hereto unobserved by previous researchers: the <u>inequality of reciprocal influence between members of a confusion pair</u>, as far as tense-aspect is concerned.

8. Based primarily on the findings contained in Table 6.68, but also taking into accounts results from sections 6.12 and 6.13, the following developmental course of the Present Perfect in Cantonese learners of English was proposed:



6.16. Linguistic Development of Two Durative Adverbials (LW)

This section reports the last of the four error analyses dealing with the development and use of tense-aspect and time adverbials. The analysis focused on the use and development of two durative adverbials. The error data for this analysis were based on the subjects' performance in two specific adverbial contexts in the letter-writing (LW) task. The two contexts are:

1. [I / We] haven't seen [you / each other] for a long time.

2. I met Joseph(ine) who(m) I had not seen for eight months.

The first underlined adverbial is an 'indefinite durative', and the second a 'definite durative' adverbial.

The purpose of this analysis was to describe in some detail what linguistic forms the subjects at different levels used for the expression or realization of the given durative adverbial functions.

The subjects' erroneous responses can be found in Appendix 20. Table 6.69 below presents the frequency distribution of the various types of erroneous realizations of the adverbial functions, together with the correct uses.

Table 6.69 Frequency Distribution of Errors and Correct Uses in 2 Durative Adverbial Contexts (LW)

Error Category	L1	L2	L3	L4	L5	Total
1. Singleton Adverb	4	-	-	-	-	4
2. About NP	3	1	6	5	1	16
3. About NP ago	1	-	1	-	-	2
4. At NP	-	2	-	-	-	2
5. For NP	2	-	-	-	-	2
6. For NP ago	-	-	2	-	-	2
7. In NP	2	1	-	1	-	4
8. NP	16	23	7	4	-	50
9. NP ago	4	3	5	2	-	14
10. Since	-	-	2	1	-	3
11. Clause	-	3	1	3	1	8
12. Others	1	-	-	-	-	1
Error Total:	33	33	24	16	2	
Correct Use						
13. Prep. Phrase	15	15	26	32	52	
14. Clause				1	3	

Reading the error totals for the five levels, one can see that the subjects produced fewer and fewer adverbial errors as they moved up the academic ladder. However, there was no difference in the use of durative adverbials within the first two secondary years. (It is interesting to refer back to Table 6.34, where the Level 1 and L2 means for the overall use of phrasal adverbials were shown to be non-significant.)

Reading the row totals for the twelve error categories, we can see that there were a few error-types more often used, relatively speaking, to realize the durative adverbial functions: they are Types 1, 2, 7, 8, 9 and 11.

To arrive at a more general pattern/picture of the development and use of the durative adverbials, another merging exercise (similar to the one seen in the last section) was performed, which produced the following error categories:

I.	Singleton Adverb	
II.	About NP (ago)	[Types 2 and 3]
III.	At/For/In NP (ago)	[Types 4 to 7]
IV.	NP (ago)	[Types 8 and 9]
V.	Since NP	
VI.	Clause	

The single case in the 'Others' category was ignored.

Table 6.70 shows the frequency distribution (%) of the six merged error categories as well as the correct use categories (see next page).

Based on the figures (percentages) in Table 6.70, a number of observations on the development and use of the durative adverbials can be made.

First, singleton adverbs (<u>soon</u>, <u>now</u>, <u>sometimes</u>) were used only by Level 1 subjects for the realization of the durative adverbial functions. By Level 2, the inappropriacy of the single-word adverbs for the durative functions was quickly recognised, and the use dropped.

Table 6.70 Frequency Distribution (%) of Correct & Incorrect Uses of Durative Adverbials in 2 Contexts

		L1*	L2	L3	L4	L5
	Error Category					
I.	Singleton Adverb	6.7	-	-	-	-
II.	About NP (ago)	6.7	1.7	11.7	8.3	1.7
III.	At/For/In NP (ago)	6.7	5.0	3.3	1.7	-
IV.	NP (ago)	33.3	43.3	20.0	10.0	-
V.	Since NP	-	-	3.3	1.7	-
VI.	Clause	-	5.0	1.7	5.0	1.7
	Total:	53.4	55.0	40.0	26.7	3.4**
	Correct Use					
VII.	For NP	25.0	25.0	43.3	50.0	80.0
VIII.	Since NP	-	-	-	3.3	6.7
IX.	Since-clause		-	-	1.7	5.0
	Total:	25.0	25.0	43.3	50.0	91.7**

*N=60 (30 subjects x 2 contexts) at each level.

**The correct and error percentages did not include 'abandonment'

Second, the major structure used for the realization of the durative functions, in the first two years was NP (ago) [IV], e.g.

(a) I haven't seen you one year.

(b) Dear Paul I am long time no see.

(c) I met a Primary classmate, and I was not see her eight month ago.

(d) I met a friend eight months we weren't see each other.

However, this form of durative realization decreased gradually and steadily from Level 2 onward as the subjects became more proficient, and was out of use by Level 5.

Third, another type of noun phrase used, in a substantial percentage of cases, to express the durative functions was About NP (ago) [II]. The noticeable drop at Level 2, with only 1.7% (or 1 single case), was probably due to the corresponding, heavier use of NP (ago), which reached 43.3% at Level 2. It is interesting to note that About NP (ago) was used in a quite substantial percentage at Levels 3 and 4. Below are a few typical examples:

(e) We had not seen each other about eight months.

(f) Two days ago I was met a primary schoolmate who was not meet about eight month —— Josephine.

(g) ... I met Joseph, a friend of us and I haven't seen him about eight months ago.

Coming to Level 5, this structure, however, dropped dramatically to just 1.7%. It should be pointed out that this structure was one of the two cases that still caused problem for Level 5 subjects.

Fourth, there were a small number of 'time-when' prepositional phrases used almost randomly at the first four levels, with the possible exception of the In NP structure. All these prepositional structures were rejected by Level 4.

Fifth, it is interesting to note the late emergence of the Since NP structure [V], which is a 'definite' durative adverbial. It began to emerge at Level 3, but the initial attempts ended in errors. Coming to Level 4, three Since NPs were used: two were successful and one a failure. By Level 5, all Since NP attempts were successful.

Sixth, clausal structures used for the durative adverbial functions emerged at Level 2, but they were all 'time-when' clauses, e.g.

(h) I have never see you when we leave our Primary school.

(i) We had not seen after we leave primary school.

Real durative clauses, i.e. the Since-clause constructions, appeared at Level 4. There were two of them:

(j) We haven't seen each other since you left primary school.

(k) We haven't seen both other since we leaf our school.

The Since-clause in (k) was considered defective because of its internal structure. The use of the Since-clause structure increased at Level 5 and they were all correct. The single clausal error at Level 5 could have been correct if the subordinator since had been added to it:

(l) It has been a long time I saw you last time.

Seventh, the target For NP structure was used with an ever-increasing percentage over the five-year period, ranging from 25.0% at Level 1 to 80.0% at Level 5.

Finally, reading the correct-use totals, it is the case that the subjects began poorly in their use of durative adverbials but they finished the course remarkably well, reaching the 90% criterion —— a sign of acquisition. The real 'big leap upward' came at a period between Level 4 and Level 5.

Based on the developmental facts observed above, a developmental course for the durative adverbials over the five academic levels was inferred, and it is represented in Figure 6.6[a].

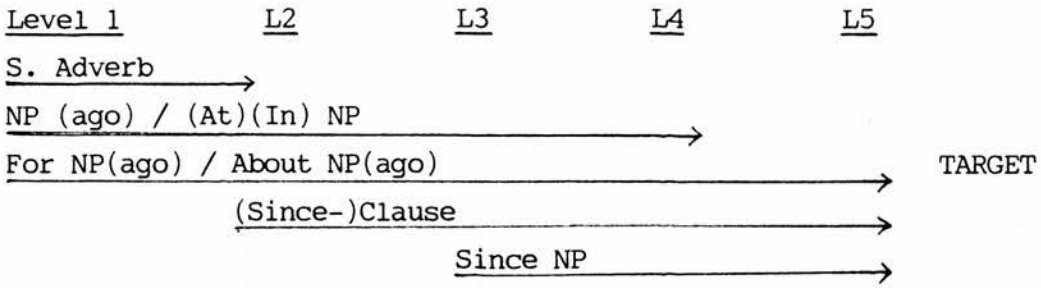


Figure 6.6[a] Development of the Durative Adverbial

An alternative representation is shown in Figure 6.6[b] below.

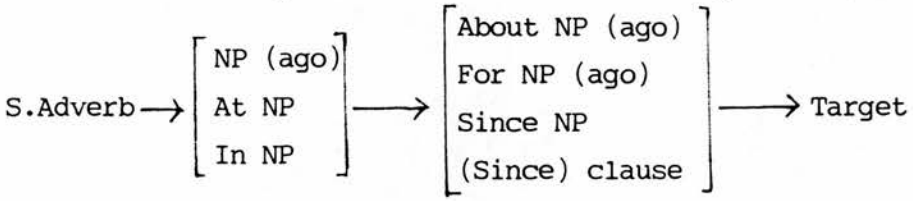


Figure 6.6[b] Development of the Durative Adverbial

6.17. Findings and Conclusions from Part III

With the results of analyses from sections 6.12, 6.13, 6.14, and 6.16, we can answer the two questions posed at the beginning of Part III:

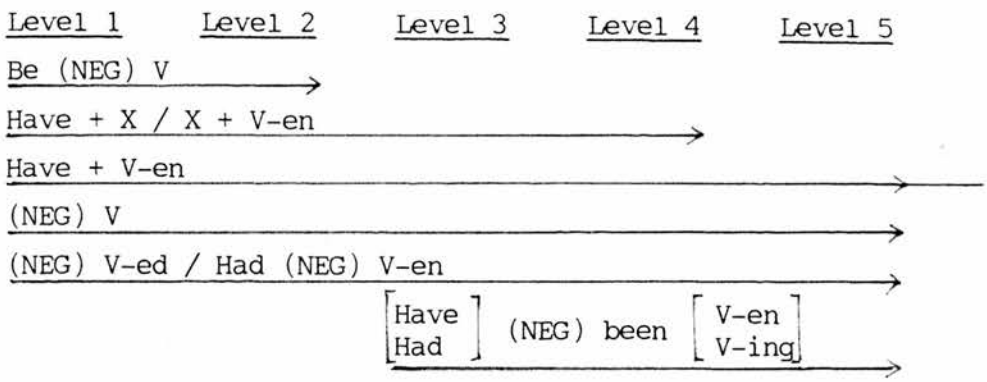
Q.6. Is it the case that the development and use of tense and aspect exhibits 'systematicity' and 'variability'?

Q.7. How does the linguistic evolution of some tense-aspect and time-adverbial functions proceed?

6.17.1. Answers to Questions

a) The results of the obligatory cum non-obligatory analyses (section 6.12), the response analyses (section 6.13), and the specific context analysis (section 6.14) demonstrated clearly and convincingly that the subjects exhibited patterned use and development of the Present Perfect, reflecting the use of some systematic interlanguage rules, which were related to their levels of proficiency.

The convincing evidence did not come from one task or one context only; it came from different tasks (i.e. letter-writing and fill-in-blank) and contexts. The systematic nature of the subjects' use of tense-aspect was therefore empirically supported. While exhibiting 'systematicity', the subjects' development and use of the Present Perfect also showed 'variability'/variable performance. This is visually illustrated by Figure 6.5[a] in section 14, which is reproduced below for easy and quick reference:



Looking at each level vertically, we can see that the subjects used a range of 'interlanguage rules' for the realization/expression of the Present Perfect function. Looking across the five levels, we can see the change of the distribution of rules. For example, the set of 'variable rules' used by Level 1 subjects was not identical to the set of rules used by Level 4 or 5 subjects. Certain interlanguage rules appeared to be related to a particular level of proficiency.

We may conclude from the above evidence that variable performance or 'variability' within-group and across-level was a feature of the subjects' development and use of the Present Perfect. [It should be noted that data from section 6.16 also pointed to the variability conclusion.]

On the basis of all the available evidence, we can answer Question 6 with an affirmative and empirical YES.

b) Concerning the linguistic evolution of some temporal functions, we may refer again to the qualitative and quantitative changes found in the development and use of the Present Perfect and the 'durative' adverbials.

We already noted the qualitative change, over time, of the distribution of linguistic rules used for the expression of the Present Perfect (cf. Figure 6.5[a]). At the start of the developmental period under study (i.e. Level 1), the subjects employed seven 'interlanguage rules', of which the rule Be (NEG) V was heavily used (cf. Table 6.68). The pattern of rule use changed across levels. At Level 3, for example, the interlanguage rule (NEG) V featured relatively prominently; simultaneously the Be (NEG) V rule was dropped, and a new interlanguage rule Have/had (NEG) V-en/V-ing was added. At Level 5 only five interlanguage rules remained in use, of which the target rule was used 60% of the time.

As regards the durative adverbials (cf. Table 6.70 and Figure 6.6[a]), we may note that Level 1 subjects used six interlanguage rules (after the rule-merging exercise), with NP (ago) standing well above the other rules. They also used single-word time adverbs like soon, sometimes and now for the expression of durative functions. At Level 2, the 'singleton' rule was dropped, but a new rule involving the use of time-clause was added. Coming to Level 3, another new interlanguage rule Since NP was added. Reaching Level 4, the subjects added yet another interlanguage rule, since-clause. At Level 5, 3 incorrect interlanguage rules were dropped. Quantitatively, the subjects used durative adverbials correctly only 25% of the time at Levels 1 and 2 [compared with about 55% of the time incorrect during the periods]. But the correct percentage reached 91.7% at Level 5, indicating that the linguistic realization of the durative function was mastered.

As is clear from the last two paragraphs, the linguistic evolution of the temporal functions in the subjects did not proceed in a linear, sequential manner, with one linguistic rule after another. What, in fact, happened was a concurrent horizontal-cum-vertical development, with addition and deletion of interlanguage rules during the developmental course.

6.17.2. Summary and Conclusion of Part III

1. The development and use of the Present Perfect and durative adverbials exhibited both 'systematicity' and 'variability'.

2. The linguistic evolution of the Present Perfect and the durative functions revealed a course which witnessed both 'horizontal' (across levels) as well as 'vertical' (within-level) development.

3. The use of the Present Perfect was influenced by one or a combination of the following factors: (a) subjects' previous knowledge of or exposure to the linguistic form(s); (b) the semantic property of the verb and its co-occurrence possibility with adverbial(s); (c) subjects' interpretation/perception of the linguistic context, or their focus on the local/global discourse context; (d) possible influence of their mother-tongue.

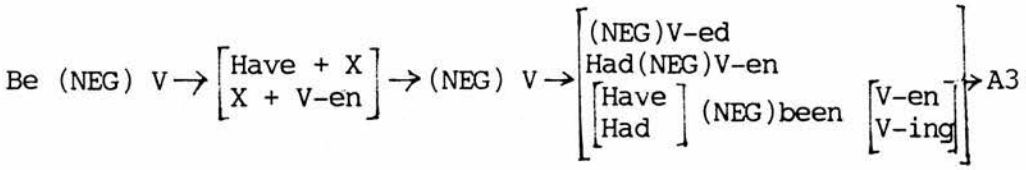
4. 'Current relevance' was a conceptually difficult notion for the subjects to grasp.

5. There existed an 'inequality of reciprocal influence' between members of a tense-aspect confusion pair.

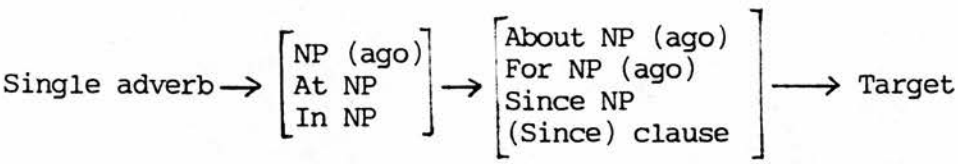
6. There was a tendency for subjects to use noun phrases for the expression of durative adverbial functions at Levels 1 and 2. The use of singleton time adverbs was confined to Level 1.

7. The durative adverbial since NP emerged at Level 3 and the adverbial since-clause emerged at Level 4. The use of these two durative adverbials were mostly correct at Level 5.

8. The developmental course for the Present Perfect was as follows:



9. The developmental course for the durative adverbials was as follows:



NOTES

1. The results of the Scheffé tests of contrasts between the overall, combined (F1B + LW) level means indicated that there was no significant difference between Level 1 and Level 2 means, or between Level 3 and Level 4 means, whereas a highly significant difference ($p<0.01$) was found between Level 2 and Level 3 means, and between Level 4 and Level 5 means.

2. The results of a three-way [Level x Tense-aspect x Task] ANOVA (cf Appendix 21) indicated that there was a highly significant Tense-aspect and Level interaction ($p<0.001$), suggesting that the relative ease/difficulty in Tense-aspect use did not remain constant over time.

3. The results of the Scheffé tests of contrasts among the Tense-aspect means in letter-writing (LW) indicated the following ['>' means "performance significantly better than"]

   A1 > B1, C1, A2, A3, B2, B3

   B1 > A3, B2, B3

   C1 > B2, B3

   A2 > B2, B3

   A3 > B2, B3

4. The results of the Scheffé tests of contrasts among the Tense-aspect means [cf. Note 3 above] provided more detailed information about the Aspect-Nonaspect contrasts in LW :

   A1 was significantly easier than all the Aspect categories (A2, A3, B2, B3).

   B1 and C1 were significantly easier than A3, B2 and B3, but not so with A2. (Also, see Note 10 below)

5. The results of the Scheffé tests of contrasts among the Aspect means, however, indicated that both in LW and in F1B, the Progressives A2 and B2 were, individually, not significantly easier than A3 and B3 respectively. In other words, within the same tense domain, the progressive was not significantly easier than the perfective (i.e. A2 $\not>$ A3; B2 $\not>$ B3).

6. The results of the Scheffé tests of contrasts among the combined (F1B + LW) Progressive and Perfective means over the five levels indicated that except for A2 A3 at Levels 3 and 4, all other Progressive-Perfective contrasts were not significant.

7. The results of the Scheffé tests of contrasts between the combined (F1B + LW) B1 and C1 means for the five levels, however, indicated that there was an interaction between B1/C1 and Level (cf. Note 2 above), and that none of the within-level performance differences between the combined B1 and C1 means were significant.

8. The results of the Scheffé tests of contrasts between the combined (F1B + LW) B1 and A3 means for the five levels, however, indicated that although the subjects at all levels performed better in the Simple Past (B1) than the Present Perfect (A3), none of the within-level differences were significant.

9. The results of the Scheffé tests of contrasts among the Tense-aspect means in F1B, however, indicated only the following significant differences :

   C1 > B2, A1, B3

   B1 > B3

   A2 > B3

10. The results of the Scheffé tests of contrasts among the Tense-aspect means [cf. Note 9 above] provided additional information about the Aspect-Nonaspect contrasts in F1B:

    C1 was significantly easier than B2 and B3, and B1 was significantly easier than B3. All other Aspect-Nonaspect contrasts were not significant.

11. The Scheffé tests of contrasts among the combined (F1B + LW) Tense-aspect means for the five levels produced the following significant results concerning the Aspect-Nonaspect contrasts:

Level 1	A1 > A2, B2, B3
	B1 > B2, B3
Level 2	A1 > B2, B3
	B1 > B3
Level 3	A1 > B3
Level 4	A1 > B3

    Apart from the significant results above, all other within-level Aspect-Nonaspect contrasts were non-significant.

12. The results of a three-way ANOVA [cf. Appendix 21] indicated that there was no significant Task effect ($p = 0.90$), nor was there significant Task x Level interaction ($p = 0.36$) suggesting that overall, the relative task difficulty remained constant over the five grade-levels.

13. The results of the three-way ANOVA indicated that there was a highly significant Task x Tense-aspect interaction ($p < 0.001$), suggesting that, in a general way, the use of Tense-aspect was significantly affected by different tasks (For reference to specific differences, see the notes referred to earlier).

CHAPTER SEVEN

REVIEW AND DISCUSSION OF RESULTS

Introduction

The structure of the review and discussion in this chapter will, in a general way, follow the order of the main findings and conclusions found in Chapter Six. The focus of the discussion will be on some general issues arising from the research findings.

7.1. The Developmental Pattern and 'Stages'

a) Recapitulation of Results (cf. subsection 6.5.1 [a & b])

It was established, with ANOVA's and t-tests, that the subjects' use of tense-aspect and time adverbials was significantly related to their levels of proficiency, that their performance showed a continuous upward progression, but that the developmental course did not always proceed in a uniform rate from one level to the next. And, specifically, on the basis of the t-test results, four 'developmental stages' were conceived, defined in terms of the relative significance of the rate of development: two periods (Levels 2-3 and Levels 4-5) with significant development; and two other periods (Levels 1-2 and Levels 3-4) less marked for significant progress.

b) Discussion

To account for the developmental pattern and 'stages' outlined in (a) above, one could resort to a number of possible explanations, e.g., the input factor, the learner factor, 'language universal', etc. Here, we confine ourselves to three considerations: the 'task' factor, the 'structure'factor, and the 'examination' factor.

The 'task' factor suggests that the nature of the task might produce a differential effect on the subjects' performance. At issue is the task difference between letter-writing (LW) and fill-in-blank (FIB). The 'structure' factor suggests that specific structures might have an overriding effect on the development or lack of development during certain period(s). The 'examination' factor suggests that the pressure of examinations could have a positive effect on one's learning.

The subjects' performance in the Simple Present (A1) illustrates the 'task' and the 'structure' factor aptly. Despite its cumulatively significant development across Levels 1 through 5, the Simple Present did not show any between-level significance (Table 6.5) in the letter-writing task. This, of course, would eventually affect the t-values for the pairs of overall level means. The point to note is that only the Simple Present behaved in this way because this structure was 'easy' for the subjects (overall mean of 85.5). The other tense-aspect structures did not appear to be so. Thus we have the structure effect on the overall shape of development. However, the 'ease' with the Simple Present found in the LW task was not reflected in the subjects' use of the same tense in the fill-in-blank task (overall mean of 36.0). Here the task effect was evident.

The structure effect was also evident in the time-adverbial development. For easy and quick reference, the t-test results reported in Tables 6.31 and 6.34 (subsection 6.4.2) are reproduced below in a modified format for comparative purposes. All values are in 1-tail probability.

Levels	1-2	2-3	3-4	4-5
Overall T-adverbial	.018*	.011*	.059	.000**
Clausal	.073	.035*	.130	.001**
Phrasal	.148	.025*	.003**	.007**
Singleton	.003**	.303	.395	.144

*$p < .05$ **$p < .01$

As is clear from above, overall there was a significant difference (hence 'development' or 'regression', whichever applicable) between Level 1 and Level 2 means ($p = .018$). However, looking at the same column (Levels 1-2), we find that the only adverbial structure showing a significant difference was the 'singleton' ($p = .003$). So, the significant difference between the overall means of levels 1-2 was, in fact, largely due to the contribution of the singleton structure during that period. By the same measure, the singleton structure did not really contribute to the significant readings for Levels 2-3 or Levels 4-5. For the latter two periods, the contributions mainly came from the phrasal and the clausal structure.

The discussion on the 'task' and the 'structure' factor does not provide a direct answer to the question of what a developmental pattern is like, but it helps us understand what lies behind or shapes a developmental pattern.

One of the major findings in this study is that there were distinct stages of development across the secondary spectrum in the use of tense-aspect and time adverbials ['stages' defined in terms of the relative significance of the rate of development] and that the periods Levels 2-3 and Levels 4-5 were particularly marked for significant growth. Why was this so?

To provide a possible and plausible account of this developmental phenomenon, let us recall the descriptive facts about the education system in Hong Kong (section 1.1) operative at the time of data collection. We have noted that there are two academically important public examinations in the secondary education: the Junior Secondary Education Assessment [JSEA] at the end of the third year (ie. Level 3), and the Hong Kong Certificate of Education [HKCE] at the end of the fifth year (i.e. Level 5). The two examinations are used, among other functions, to select pupils for further education; so they are extremely important for pupils'

academic careers. Because of this, the pupils, helped by the teachers concerned, are willing to work harder than normal during the periods leading to the examinations, in the hope that they will be able to jump over the academic hurdles.

In the context of these important examinations (and the pressures and 'benefits' they bring along), the subjects' more significant performance/development found between Levels 2-3 and Levels 4-5 are fully interpretable: the first period leading to the JSEA, and the second period leading to the HKCE Examination. The point to stress is that the examination factor appeared to be closely related to the significant development and use of tense-aspect and time adverbial in our learners in a formal learning setting.

c) A Conceptualization and a Report of Facts

Putting together the available developmental evidence primarily from Tables 6.2, 6.3, 6.5; 6.19, 6.20, 6.22; 6.31, 6.32, and 6.34, we propose the following figure, which captures the subjects' developmental course.

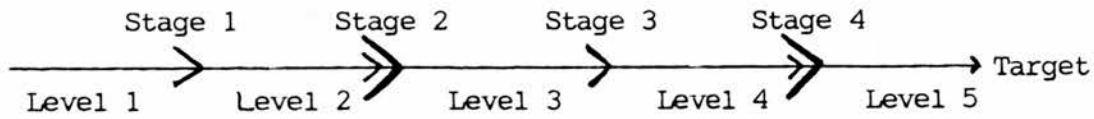


Figure 7.1 Development of T-A and T-adverbials: A Conceptualization and a Report of Facts

An explanatory note for Figure 7.1 is necessary. First, the straight line running from left to right represents a continuous, unbroken time continuum. Levels 1 through 5 are academically defined levels. All arrow-heads represent movement and direction. The size of an arrow-head reflects the magnitude of development: a bigger head stands for greater developmental

gain or more significant progress; a smaller one indicates less significant development. A smaller head embedded in a bigger one indicates that within a dominant, highly significant trend/development, there may be some less significant development going on alongside the significant one.

The strength of Figure 7.1 lies with its formal simplicity and iconic value. More important, however, is the fact that it can accommodate important notions such as 'development/progression', 'continuum', 'stage', 'sequence', 'variability', and so on. It is a conceptualization of language development; but more crucially, it is a diagrammatic representation of 'observed facts' gleaned from the various analyses.

For examples, the fact that there were four developmental stages is clearly represented by the four arrow-heads.

The two pairs of big-small arrow-heads indicate concurrent development (i.e. a non-significant development with a significant trend). An 'embedding' example can be found in the adverbial data summarized in the table in the last subsection, (b). It can be seen that the difference between the overall means for Levels 2 and 3 was significant ($p = .011$). However, the development of the singleton adverbial in the same period showed a non-significant trend.

Another kind of developmental fact is that there may be significant development for certain structures amidst an overall non-significant trend. An example is the phrasal adverbial development in the Levels 3-4 period (cf. the table in subsection [b] above). The overall adverbial development during Levels 3-4 was not significant ($p = .059$), but the development of phrasal adverbials in the same period was significant ($p = .003$). In Figure 7.1, this developmental fact is represented by a medium-sized arrow-head (the one under Stage 3 or Stage 1).

There was one other kind of developmental phenomenon not represented in Figure 7.1 because it did not constitute any significant trend: the regression phenomenon. Examples of regression can be found in Table 6.3, between Levels 1 and 2 (the Present Perfect and the Past Perfect); or between Levels 3 and 4 (the Simple Past). Another place for regression examples is Table 6.20. It should be pointed out that the subjects had a weak tendency to regress during Stage 1 and Stage 3 only. Stage 2 and Stage 4 did not show this tendency. The 'examination factor' seems capable of accounting for this contrasting situation. Another point worth noting is that Figure 7.1 can easily accommodate the regression phenomenon by having an arrow-head pointing backward.

7.2. The Relative Difficulty of Tense-aspect Categories & Time Adverbials

a) Recapitulation of Results (cf. subsection 6.5.1 [c & d])

In subsection 6.5.1[d], we established the following orders of difficulty of the tense-aspect members and the time adverbials:

(i)

T-A Categories	T-A Groups
The Simple Present	
The Simple Future	The Simple, Non-aspect
The Simple Past	
The Present Progressive	The Progressive (Aspect)
The Present Perfect	
The Past Progressive	
The Past Perfect	The Perfective (Aspect)

(ii) Adverbial Structures

Singleton T-adverbial
Phrasal T-adverbial
Clausal T-adverbial

b) Discussion

To account for the observed difficulty order of tense-aspect categories, one may appeal to the notion of 'structural/formal complexity', which suggests that if a pattern or structure has more component(s) than the other, the structure is considered more complex, and vice versa. It is clear that the top three Simple members have at least one structural component fewer than the Aspect members:

Simple, Non-aspect: V (+s) / V + ed / Shall/will + V
Aspect : Be + V + ing / Have + V + en

The label 'Simple' is descriptive of the situation.

Alternatively, one may appeal to the notion of 'conceptual/cognitive complexity', which suggests that if a pattern or structure involves more semantic considerations, is related to more semantic functions, overlaps with some other structure in some semantic domain, and so on, this structure is considered cognitively/conceptually more complex; if the opposite is true, it is considered cognitively 'simpler'. Under this light, the Non-aspect members are conceptually less complex because they make specific reference to single points/periods (the time-when); they are deictic in their primary usage. The Aspect members, however, are conceptually more complex. They are non-deictic and non-referential, hence less specific. Furthermore, the use of the Progressive Aspect involves a consideration of the meaning of the verb (e.g. 'dynamic' vs. 'stative'), and the use of the Present Perfect, for example, involves a subjective consideration and presentation of the situation (to treat the situation as an

'inclusive' or 'exclusive' past). All these are cognitively more demanding.

Within the Aspect group, the Progressive-Perfective order, especially the Present Progressive-Present Perfect order, can also be accounted for by the 'conceptual difficulty' notion. For example, the Present Progressive has the basic meaning of 'ongoing' action, but the Present Perfect has at least two basic meanings: the 'perfect of result' and the perfect of experience' (cf. subsection 3.2.2).

The notions of 'structural complexity' and 'conceptual complexity' appear to be equally applicable to the difficulty order of time adverbials. It is truism to say that clausal adverbials are structurally more complex than phrasal adverbials, which in turn are more complex than singleton adverbials.

Conceptually, the singleton adverbials have relatively stable meanings (i.e. constant form-meaning relationships). Phrasal adverbials are more complex because many preposition-heads can perform other grammatical functions and have different meanings, and a number of rules governing preposition omissions cause further conceptual difficulty for second-language learners. The great difficulty with clausal adverbials is that their proper/correct use involves the 'coordination' of all the components within it; any faulty part would affect the grammaticality/acceptability of the whole clause. Hence, they are the most difficult to use.

To conclude, the discussion has focused on two linguistically-oriented explanations for the tense-aspect and time-adverbial orders of difficulty. Other accounts are possible, but the two here appear to have done their job adequately.

7.3. The Present Perfect Confusion

a) Recapitulation of Results (cf. section 6.12)

The 'obligatory context' (OC) and 'non-obligatory context' (NOC) analyses of errors resulting from use of the Present Perfect in the letter-writing task confirmed previous findings on three confusion areas related to the use of the Present Perfect:

(i) The Present Perfect — the Simple Present
(ii) The Present Perfect — the Simple Past
(iii) The Present Perfect — the Past Perfect

The OC and NOC analyses further revealed an important and interesting finding: the 'inequality of reciprocal influence' between members of a confusion pair. It was found that the Simple Present was more often used in/generalized to the Present Perfect contexts than the other way round; the Simple Past was more often generalized to the Present Perfect contexts at Levels 1 and 2, and then the Present Perfect was more often generalized to the Simple Past contexts at Levels 3, 4 and 5; finally, the Present Perfect was found to be more often generalized to the Past Perfect contexts at Levels 3, 4 and 5. Figure 7.2 below summarizes the four generalizations (the direction of generalization is indicated by the arrow-head).

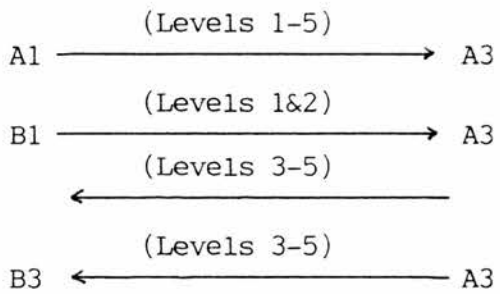


Figure 7.2 Direction of Influence/Generalization

b) Discussion

Our discussion will be guided by two pertinent questions:
(1) What were the possible causes underlying the confusion pairs?
(2) What accounted for the skewed reciprocity of influence in the members of each confusion pair?

Let us first consider the Present Perfect-Simple Present confusion pair. One prevalent hypothesis concerning a learner's use of the simple, untensed/uninflected forms in the early stages is that he follows some 'developmental universals' (Devlin 1983) or 'pragmatic principles' (Klein 1986). An alternative account would be that the learner is forced to produce language forms he has not yet mastered. These two are reasonable hypotheses as long as our subjects came from the lower proficiency levels. The problem is that many subjects who used the Simple Present for the Present Perfect were from Secondary 4 or 5. Therefore the two accounts, by themselves, do not appear very plausible.

Now it will be recalled that in section 3.5[a] we deduced a 'behavioral tendency' in Cantonese learners of English that they will tend to use the basic, untensed forms in places where tensed forms are called for, because Cantonese is a 'tense-less' language. This suggests the 'mother tongue effect'.

What might have happened, with respect to some subjects' continued use of the Simple Present for the Present Perfect at higher levels, is that their early use of the simple forms agreed with, and was therefore reinforced by, the Cantonese pattern. This, according to Zobl (1980b), would delay the mastery of the proper form, and hence prolong the acquisition period —— the mother-tongue effect again.

As regards the Present Perfect-Simple Past pair, the problem appears to be largely a conceptual one. Both the Simple Past and the Present Perfect place the event time before the moment of

speaking. The only difference is that the latter involves 'current relevance', which, we have witnessed, proved a difficult concept for the subjects to grasp (cf. subsection 6.1.4.3 and the summary of Section 6.13). Apart from this conceptual difficulty, their native language use might prolong the period of, or even aggravate, the confused situation, because Cantonese lacks the grammatical distinction that English makes (cf. Section 3.5[b]).

Finally, concerning the Present Perfect-Past Perfect pair, the problem appears to be both a formal and conceptual one. Formally, the Present Perfect and the Past Perfect look similar, the only difference being the Have/Had distinction. Conceptually, the two perfectives have the basic function of locating an action or state in a period of time beginning before and coming up to some reference point, or stretching from some reference point backward into some earlier time (cf. subsection 3.2.2). When our subjects came to use the Present Perfect, the formal and conceptual similarities would give rise to 'confusion'. The situation was made worse by the fact that Cantonese has only one formal marker jo for the perfective function in the past, the present, or the future (there being no tense distinction). In other words, the native pattern would reinforce or keep alive the existing 'confusion' (cf. 3.4.12 and 3.5[c], pp.115-6).

To summarize at this point, what we have been arguing is that the underlying causes of the observed interlanguage confusions could be traced to the formal and semantic properties of the structures concerned and to the grammatical and semantic properties of the learners' native language. The interesting interplay of these first-and-second-language factors was observed by Zobl (1980b and 1984): the mother-tongue will have a delaying effect on the complete mastery of an L2 structure if the mother-tongue pattern matches the interlanguage pattern; and the mother-tongue will exert its influence in the 'periphery' areas of the second

language (e.g. the choice between the Present Perfect and the Simple Past is not a hundred percent clear-cut) [cf. subsection 2.3.9].

Let us continue to explore the phenomenon of 'skewed reciprocity of influence' in the members of each confusion pair outlined in Figure 7.2.

In a general way, the 'direction of influence/generalization' in each confusion pair can be accounted for in terms of the general difficulty order for tense-aspect established in subsection 6.5.1[d], reproduced in section 7.2 earlier.

The first, second and the fourth arrow below originate from an easier tense-aspect category to a more difficult one:

1. The Simple Present —(Levels 1-5)→ The Present Perfect
2. The Simple Past —(Levels 1-2)→ The Present Perfect
3. The Simple Past ←(Levels 3-5)— The Present Perfect
4. The Past Perfect ←(Levels 3-5)— The Present Perfect

The only exception is the third arrow, which indicates that from Level 3 through Level 5, the Present Perfect was more often generalized to the Simple Past contexts, in contrast with Levels 1 and 2, where the Simple Past was more often generalized to the Present Perfect context.

To understand the phenomenon better, let us return to Table 6.10, which examines the developmental relationship between the Simple Past and the Present Perfect. There we can see that the performance on the Simple Past was significantly better than that on the Present Perfect. This lends support to the observation made in the second arrow. There, too, we can see that the performance difference between the Simple Past and the Present Perfect was not significant at Levels 3, 4 and 5.

Now, let us re-examine the Simple Past-Present Perfect confusion data from Levels 3 through 5 extracted from Tables 6.56 and 6.57. The arrow sign means "generalized to".

	L3	L4	L5
Simple Past → Present Perfect contexts	6	11	10
Present Perfect → Simple Past contexts	9	13	15

It is clear that the difference between the two sets of figures is not as big as those found in the other confusion pairs. Accordingly, the third arrow should be interpreted and and read as "the Present Perfect was slightly more often generalized to the Simple Past context than the other way round".

An interesting point to make is that the slightly higher frequency of generalization of the Present Perfect to the Simple Past contexts occurred at a time when the Present Perfect was overgeneralized to the Past Perfect contexts (cf. Table 6.57). One suggestion is that the subjects had just commenced to try out the perfective usage, though often ending in failure. This view is supported by the developmental data in the letter-writing task (cf. Table 6.3).

7.4. Verb-phrase Omission and Misformation

a) Recapitulation of Results (cf. 6.11.1 [a]

It was established, with the results from ANOVA's and t-tests, that VP-omissions and VP-misformations were significantly related to the subjects' proficiency level(s), and that these two types of error decreased significantly in inverse proportion to greater proficiency.

Distributional analyses further revealed that specific types of VP-omission and VP-misformation errors were also relatable to the learners' proficiency levels.

b) Discussion

The first, general comment to make is that very few published SLA investigations have studied verb-phrase omission and misformation in any great detail; fewer still from a developmental perspective. Most studies have stayed at a very general level of analysis (e.g. Scott & Tucker 1974); some simply listed a few representative examples illustrating the phenomena (e.g. Richards 1974:172-188). Mukattash's (1978) has been one of the few studies which got down to details and quantified the data. His investigation, however, was not a developmental attempt.

We feel that the approach we adopted in analyzing errors in greater detail and from a developmental perspective is a correct one, as it can uncover specific facts not normally available in a very general, synchronic study. For example, Devlin (1983) noted that verb-phrase omission and modal verb-phrase misformation represented serious problems confronting his Russian subject (cf. subsection 2.4.5). But the reader was not informed of the true nature and magnitude of the omission and misformation problems, let alone the developmental significance.

Like Devlin, Scott & Tucker (1974) noted misformation of the verb phrase was a common error, but did not reveal the nature of the problem.

In contrast, the present study pinpointed the weighty misformation types and went on to analyze each of them in detail from a developmental perspective. The results were some very specific statements about the nature of the problem. For example, instead of just noting the modal verb phrase misformation, as Devlin did, our analysis (cf. Table 6.42) examined the various sub-types of modal verb phrase misformation across the five levels, noting their general as well as developmental significance. Thus, modal + V-ed was the most frequent one, but this misformation was related more to the higher level subjects than to the lower proficiency subjects. And modal + V to-infinitive (*you must to give answer) was the second in terms of frequency, but this misformation was almost exclusively related to subjects from the first three levels. This misformation was not a problem for the more advanced learners; but the first misformation was. Such specific statements are of immense value for researchers who wish to understand the development process, as well as for language teachers who want to devise appropriate teaching programs and materials for the various levels of learners.

What is implied in our analytical approach is that language development, be it first or second, is a dynamic process, and change is the essence of the process until it has reached a developmental plateau. A structure which proves difficult for learners at one level may not be so at the next stage. An analytical framework must be able to capture this essence if it is to produce any informative and useful statement(s) about language development.

In our analyses of three 'high-frequency types' of VP-omission, we studied the errors from a contrastive perspective, and noted the native parallels. We did not explicitly argue for the transfer position, but we hinted at a possible role for the mother-tongue. Now let us examine the most frequent misformation error, Be + V.

This VP-misformation has been widely reported on in the 'error' literature. Richards (1974:182), for instance, provided a list of this kind of misformation examples, though without indicating frequency or relative importance. Scott and Tucker (1974:83) recognized that it was the most common error in verb formation, and tied it to the development of the Progressive. Mukattash (1978) also noted this misformation, but considered it proportionally insignificant. He made the point that Be + V should be regarded as a 'developmental' error type and not as a function of mother tongue influence.

To take up Scott and Tucker's treatment of Be + V, we must stress that many of the Be + V misformations in our study were not related to the Progressive usage. Below is the reproduction of a few Be + V examples from page 242.

1. I am miss you very much.
2. If I am not make friend with him ....
3. My first-term results were only get the pass.
4. When I was not understand, my teacher ....

It is quite clear that Be + V was, in fact, used for a variety of functions: to express an emotional state (Example 1), and 'unreal', hypothetical condition (Example 2), a past event or situation (Examples 3 and 4).

To assess Mukattash's observation that Be + V misformation is not a possible function of the mother-tongue, Cantonese examples with equivalent meanings to Examples 1 - 4 were analysed. Sentences (a) to (d) correspond to Examples 1 - 4. Sentence (e) is added to serve as a starter.

a) ngo hʌi hou gwa jyu nei

'I AM very think Prog you'
(I miss you very much.)

b) yu gwo ngo m hʌi tung keui jou pʌng yau

'if I not with him make friend'
(If I had not known/made friend with him)

c) ngo seung hok kei sing jik ji hʌi lo dou kʌp gag

'I up term result only AM get Perf pass'
(My last term results reached only a pass grade)

d) dong ngo hʌi m ming bak gei si hau

'when I AM no understand Poss time'
(when I really don't understand)

e) ngo hʌi hok sang

'I be student'
(I am a student)

The point to note is the word hʌi (係) in Cantonese, which is present in each of the sentences. In sentence (e), hʌi functions as a 'copula' or 'linking verb'. This copula is non-omissible if the subject complement is an NP, as in (e). But it is almost always omitted when the subject complement is an adjective (cf. Section 6.6 for a discussion on VP + Pred. Adj).

In sentence (b), hʌi combines with m (itself a negative marker independently) to form a compound negative marker, m hʌi. Notice that hʌi within m hʌi does not add any new meaning to the unit. Sentence (b) can, in fact, simply be negated by m alone.

In sentences (a), (c) and (d), hʌi is not a copula, but a marker for implicit affirmation or emphasis. It may be loosely paraphrased as 'indeed', 'really', 'it's true that...', 'it's that...', etc. In sentence (c), for example, ji ('only') and hʌi ('emphasizer' or 'affirmator') reinforce each other in underlining the pass grade. (For the English emphasizers, see Quirk et al. 1972:439-44.)

It is in the emphatic function that hʌi frequently co-occurs with other verbs in utterances. It should be noted that all three hʌi's enjoy a very high frequency of use in Cantonese. hʌi also occurs frequently in Cantonese 'perfective' constructions.

Like our contrastive examination of the three VP-omission types referred to earlier, this short discussion of the three hʌi's provides a way, not 'the' way, to understand and interpret some of the uses of Be + V as well as Be + V-ed misformations across levels.

Mukattash's observation that the Be + V is a developmental error because it appears to be almost universal to learners of different backgrounds, might be a valid one if we confine ourselves to the early stages of second language learning (cf. section 7.3 [b] on the comment related to the Present Perfect-Simple Present confusion pair). The 'developmental' argument is weakened, however, if Be + V keeps appearing in a sizable number at relatively advanced stages of learning.

On the basis of the interlanguage data which ran through the five academic levels (though in decreasing number) and the discussion on the possible Cantonese connection, a case could be made that mother tongue influence might be a contributing factor to the production, or the prolongation of production, of some of these Be + V as well as Be + V-ed misformation (Zobl 1980b).

7.5. Message Abandonment and Message Restructuring

a) Recapitulation of Results (cf. 6.11.1 [c&d])

The ANOVA results established that 'message abandonment' (MA) was not developmentally based while 'message restructuring' (MR) was, when all the High, the Mid and the Low level data were considered (cf. sections 6.8 and 6.9).

T-tests results indicated that only the Mid and the High level means showed a significant difference in the message restructuring behaviour, suggesting that the higher level subjects tended to attempt significantly more message restructuring.

The qualitative analyses revealed that overall, the Past Perfect and the Past Progressive contexts attracted the highest numbers of message abandonment (cf. Table 6.46) while the Present Progressive and the Present Perfect contexts had the fewest

number of MA. It was further revealed that the Past Perfect and the Past Progressive contexts attracted the lowest number of message restructuring (cf. Table 6.52) while the Simple Future, the Simple Present and the Present Perfect contexts attracted a very high number of MR.

The qualitative analyses further revealed that linguistic deficiency or insufficiency need not be the major exaplanation for the mesage abandonment and restructuring behaviour.

b) Discussion

The first, general comment on 'message abandonment' and 'message restructuring' is that there have been very few attempts in adopting a developmental approach to the two types of interlanguage behaviour. The two classic studies on these topics, i.e. Varadi (1983) and Tarone, Frauenfelder & Selinker (1976), could have turned themselves into developmental investigations [Varadi's had a cross-sectional design involving subjects from two proficiency levels, and Tarone et al.'s had a longitudinal design] had they chosen to quantify the data across groups/grades and present them accordingly. Schachter's (1974) and Kleinmann's (1977) studies on 'avoidance' were synchronic investigations. The present study appears to be among the first systematic attempts in placing the two types of interlanguage behaviour in a developmental context. As the results have indicated, message restructuring was significantly related to the subjects' language development while message abandonment was not (or was only marginally related to development). Information like this will, no doubt, help to define and enrich the meanings of terms like 'avoidance', 'abandonment', etc., which are currently being used with a rather vague import.

In Part II Introduction, we noted that it was not at all easy to identify, and distinguish between, message abandonment and message restructuring. The basic criterion we adopted in deciding on one or the other was to examine a subject's utterance and see whether the basic message was retained, was reformulated in a different shape, or whether it was left behind unsaid. To do so, we had to assess the actual utterance to find out its propositional content, and then compare this content to another, assumed one. The difficulty facing us was that in semantic or propositional analysis, there is no absolute scale on which two propositional units/contents can be precisely measured; the scale is a relative one. So, for practical purposes, the two clauses below would be considered roughly the same, propositionally speaking:

a) '... We have not seen about eight months'
b) '... whom I had not seen for eight months'

It should be noted that in assessing message abandonment or restructuring, our task/operation was at the propositional level, and so we would consider (a) and (b) propositionally the same, although grammatically they are not. At issue is the separability of grammatical accuracy and propositional content. Another consideration when assessing message abandonment and restructuring was the separability of propositional content and stylistic manipulation, as illustrated by the two sentences below (slightly modified from the originals):

c) Two days ago, when I went home, I met Joseph whom I had not seen for eight months.

d) I saw Joseph, who I haven't seen for eight months when I went home after school the day before yesterday.

The propositional contents in (c) and (d) are basically the same, but the ways the contents are delivered are different.

On top of the analytical considerations just described, there is one analytical problem facing potential researchers in message abandonment and restructuring: to find out the intended meaning of an utterance (cf. subsections 2.7.4 and 2.7.5). Our study bypassed this thorny problem by having a design which allowed us to identify the intended meanings against which the propositional contents of the learners' utterances could be compared. There would have been numerous analytical indecisions without the guided-content framework (cf. Table 5.3), which, apart from 'controlling' and eliciting the subjects' output, helped the present researcher to see things more clearly and provided him with a basis for judgement.

Having discussed the analytical problems, let us return to the results of the analyses. One interesting result was that the Past Perfect and the Past progressive contexts attracted the highest numbers of message abandonment (MA), but the lowest cases of message restructuring (MR).

We saw earlier (in section 7.2 [a]) that the Past Progressive and the Past Perfect were the most difficult items (at the bottom of the difficulty order). What we have here is that the highest number of message abandonment occurred in the most difficult tense-aspect context. MA was related to the difficulty of tense-aspect. The results here reminded us of Schachter's (1974) subjects, who resorted to the 'avoidance' strategy when confronted with difficult constructions. The lowest frequency of message restructuring in the same contexts is fully understandable. If the subjects decided to abandon the attempts, they would not bother to restructure the message at all.

Another interesting finding related to message abandonment (MA) and restructuring (MR) is that the higher level subjects tended to restructure significantly more often than the lower level subjects. Such significant developmental difference was not found in the MA behaviour; in other words, higher and lower

level subjects behaved similarly with respect to MA.

The message restructuring result was in line with our common sense view that a person with linguistic resources would be in a better position to carry out restructuring or reformulation of the linguistic message, since the chances of success are greater. Our analyses of success-rates in message restructuring (Tables 6.50 and 6.51) supported this point of view. The result also challenged the established view in SLA that semantic reduction or adjustment (i.e. message restructuring in our study) often results from the learner's linguistic inability or deficiency (Varadi 1983; Faerch & Kasper 1983).

The message abandonment result (i.e. no developmental difference in the MA behaviour) could be a surprise for some SLA researchers. It has been the established view that message abandonment (or 'topic avoidance' in some other studies) often results from the learner's linguistic inability to formulate a message.

Our qualitative analysis of MA cases revealed that message abandonments at lower levels indeed resulted from the subjects' genuine lack of linguistic ability. The analysis also revealed that a sizable number of higher level subjects also 'abandoned' the intended meaning to follow their own discourse planning/elaboration. So, there were, in fact, two kinds of message abandonment: one was forced by circumstances or due to inability; the other due to 'freedom of expression' (see illustrative examples in section 6.8). One was due to linguistic difficulty; the other due to linguistic facilitation.

The most interesting thing to note is that message abandonment could be caused by two opposing forces. The end result was the same, but the underlying motivations/causes were totally different. Placed in this context, the lack of significant

developmental difference in message abandonment is perfectly interpretable. MA occurred at all proficiency levels, but the nature and cause of MA at each level was different.

What has been demonstrated in this discussion of message abandonment and message restructuring is that linguistic inability, deficiency or insufficiency (which has been overemphasized in the past) is only one of the causal factors underlying the two types of interlanguage behaviour at certain proficiency levels. Linguistic ability and proficiency can, in fact, also lead to MA and MR at some other proficiency levels. This phenomenon has not been brought to focus in SLA partly because of the methodological limitations and partly because MA nad MR studies have seldom been placed in a truly developmental context.

7.6. Language Transfer, Message Abandonment & Message Restructuring

a) Recapitulation of Results (cf. section 6.11.1 [b])

Language transfer was found to be significantly related to the subjects' proficiency level ($p < .01$); t-test results indicated that the difference in language transfer behaviour was significant between the Low and the Mid Levels ($p < .05$), but the difference between the Mid and High levels was not significantly related to subjects at the lower proficiency levels.

Transfer errors began with 40.8% at Level 1, decreased to 14.2% at Level 3, and finally came down to 3% at Level 5. Overall, the percentage was 18.5.

A qualitative analysis revealed that 'structural complexity' need not be the most important condition for language transfer (cf. section 6.10).

b) Discussion

The results of the statistical analyses reaffirmed the general view that language transfer is developmentally based. The results collaborated with previous findings (e.g. Taylor 1975; Bialystok 1983) that language transfer is most active in the low(er) proficiency groups, and that higher proficiency groups rely significantly less on transfer. Furthermore, the t-test results suggested that language transfer ceased to be significant by the time the subjects moved out of Level 3.

The major difficulty in studying language transfer, as noted by Ellis (1985:29) has been, and still is, the lack of relatively explicit criteria guiding the identification procedure; very often transfer errors and developmental errors are indistinguishable. This problem was well appreciated when we interpreted the Be + V misformation.

The contexts chosen for the present study of language transfer have quite different positional characteristics from the English. This would greatly reduce the chances of confounding results. As is clear from our discussion of the identification procedure (cf. subsection 5.4.5), great care was taken to weed out the dubious cases. Only cases which were paralleled by Cantonese counterparts and at the same time not allowed in English were included for analysis.

It was noted in the course of analysis (6.10) that language transfer was context-sensitive, i.e. some contexts appeared to attract more transfer cases than others. The time adverbial that drew the highest number of transfer cases was the simple,

time adverbial two days ago (24.7% overall). In Cantonese, the modifier can appear before or after the noun-head two days ago, with preference to the pre-NP position.

The most frequent erroneous realization for this adverbial was before two days, which appeared at all levels or proficiency. The point to note is that before and ago are semantically very close, though distributionally different. The subjects appeared to be aware of this distributional characteristic, and used before, instead, to 'foreignize' the Cantonese structure.

The transfer errors in Contexts 3 and 4 are of particular interest, from a theoretical point of view. It will be recalled (subsection 5.4.5) that Context 3 involved the placement of for eight months which was embedded in a relative clause. In Cantonese, relative clauses are pre-nominal, and so the embedded adverbial will have to be pre-nominal as well. But in English, the relative clause plus the embedded adverbial comes after the noun-head.

The results (cf. Table 6.53 in section 6.10) indicated that a substantial number of Levels 1-2 subjects followed the native typological urge to place the adverbial pre-nominally. The transfer results supported Rutherford's (1983) view on the typological influence on second language performance in learners. The point to stress here is that there appeared to be a time-schedule; the typological influence became insignificant when the subjects/learners moved out from the lower proficiency brackets. This interpretation is in line with our statistical findings discussed earlier.

Context 4 involved the placement of a time-adverbial cluster, which has a different distribution in Cantonese and English. In short, the results (Table 6.53) indicated that a substantial number of subjects from Levels 1, 2 and 3 followed the native pattern. There was a clear break and a sharp decline after Level 3.

The overall picture for our Cantonese subjects is that Level 2/3 was the watershed between significant and non-significant transfer activities.

One of the debating issues in the seventies was what proportion of errors could be ascribed to transfer. And the percentages of transfer or developmental errors were used as empirical evidence for supporting or rejecting the Contrastivist position. But as has been pointed out, many of these studies did not use a developmental design, and so there was considerable discrepancy between research results.

The results of this small transfer study indicated that transfer rate varied with level of proficiency. The rates from Level 1 through Level 5 were as follows: (40.8[%], 25.8, 14.2, 8.3, and 3.3, with an overall mean of 18.5[%]). It seems that unless background variables including proficiency levels of the subjects are known, any comparison of the transfer rates is not particularly informative.

In the rest of the discussion, an attempt is made to relate the results from the message abandonment, message restructuring and language transfer analyses within a developmental framework. Let us recapitualate and summarize some relevant results here:

i. Absolute No. of Cases	L1	L3	L5
Message Abandonment (14 contexts)	64	54	37
Message Restructuring (14 contexts)	26	42	59
Language Transfer (4 contexts)	49	17	4

ii. T-tests Results	L1-L3	L3-L5
Message Abandonment	n.s.	n.s.
Message Restructuring	n.s.	*
Language Transfer	*	n.s.

*$p < .05$ n.s. = not significant at .05 level

(cf. Sections 6.8, 6.9, and 6.10 for details)

It is clear from the t-test summary table (ii) [read in conjunction with the absolute figures in table (i)], the message abandonment behaviour occurred in all levels of proficiency, though Level 1 subjects had significantly more MA cases than Level 5 subjects.

The interesting thing comes from the contrastive patterns in the subjects' message restructuring and language transfer behaviour. In message restructuring, no significant difference was found in Levels 1-3, but the period of Levels 3-5 was significant. Language transfer was found to be significant in Levels 1-3, but not significant in Levels 3-5.

Relating the subjects' message restructuring behaviour and transfer behaviour, we can say that the lower proficiency subjects showed a significant trend in employing transfer but an insignificant trend in the use of message restructuring, while the higher proficiency subjects showed a significant trend in restructuring the message but an insignificant trend in employing transfer. Meanwhile, the subjects showed no developmental trend across levels in the message abandonment behaviour.

This integrated account sees a close relationship between the three types of interlanguage behaviour, and at the same time underlines their significance in the course of second language development. It has not only provided us with a better profile of the second-language learners, but has also led us to see these interlanguage activities in a slightly new light.

7.7. Observations on Research Methodology

In this section, we shall make a few discursive observations on the methodological issues arising from the present study.

a) The 1st Study

As was noted in Chapter Four, the first study ended in failure, basically because of the kind of 'naturalistic' written data collected. And the reason for getting the written data rather than spoken data is that we had great difficulty in getting the pupils to talk or respond in the second language — English. In a sociolinguistic context like Hong Kong (cf. Section 1.1), getting pupils to talk with any degree of 'naturalness' in a foreign language outside class is a near-impossible task, especially pupils from the low(er) proficiency levels. This problem appears to be an inherent one, and nothing much can be done about it. Perhaps, this is why there have been very few studies conducted, using 'naturalistic' spoken data, in places like Hong Kong, where English teaching and learning is a 'formal' business.

Experience has also told us that 'naturalistic' written data are, afterall, not so 'naturalistic', particularly data from the lower proficiency groups; a considerable amount of 'teacher-additives' have been mixed in the pupils data, making them impure. So, the 'naturalistic' written data may not be of great use, from a research point of view. It follows that data elicitation is almost the only alternative available.

b) The Danger of Single Data-type

It will be recalled (cf. 6.5.1 [d]) that we had great trouble in deciding on the positional status of the Simple Present tense, when confronted with two separate 'orders of difficulty' for tense-aspect categories. In the letter-writing order, A1 was

ranked first; but in the fill-in-blank order, A1 was placed in the sixth position —— a very great positional discrepancy.

The point to note is that if only one type of data had been used, say, the LW data or the FIB data, the placement problem would never have occurred, and we would have happily reported on the relative ease or difficulty of the Simple Present (together with the others).

The placement problem has highlighted the potential danger of using results from just one type of data to make strong claims. The same problem has also highlighted the potential usefulness of the 'non-target-like use' analysis as an additional measure on which sounder judgment can be based. To this technique we now turn.

c) Non-target-like-use Analysis

The non-target-like-use analysis technique was used in two contexts in the present study: the first to solve the Simple Present placement problem just mentioned in (b) above, and the second to study the direction of generalization/influence in the members of a confusion pair (cf. Sections 6.12 and 7.2). Another name for 'non-target-like-use' analysis is the so-called 'non-obligatory context' analysis.

Usually, SLA researchers tend to look exclusively at the obligatory contexts in which a certain category is required and ignore the other contexts in which this category is not called for. This practice has been criticized by Long and Sato (1984). The two types of data examination are interested in obtaining different kinds of information. Thus, in an obligatory-context analysis, we learn about the degree of target performance of a certain category and, at the same time, the generalization of other categories to this one. In a non-obligatory-context/

non-target-like-use analysis, we learn about the degree of target-like use and, at the same time, the generalization of this category to other contexts.

The point to note is that the non-target-like-use analysis provides another perspective on the data, focusing on the non-obligatory contexts; as a result, new facts can be uncovered. The skewed reciprocal relationship/influence in members of confusion pairs, for example, would not have been brought to light, if we had employed only the 'traditional', obligatory-context analysis. Furthermore, the additional measure can help the researcher to determine, in a better light, the status of a certain category, or can tip the balance in some undecided issues (as our Simple Present placement has shown).

d) The Inadequacy of Multiple-choice Format

It will be recalled that in our analysis of 'top three' response errors (cf. Section 6.13), we noted that Item 22 elicited a total of twenty-six response/error types, an incredible number. Of these, half a dozen or so of error-types had token frequencies ranging from 5 to 16. This interesting item is reproduced for quick reference:

> Although we have lived in this area for two years, we (not get) _____ to know many people yet.

The point we wish to make is this: in a multiple choice format, we would normally provide only four or five options for the subjects to choose from; the question is what/which options we should include, and what the criteria for distractor inclusion are. It is important to emphasize that the resultant patterns of development would, in some way, reflect the items we put in; in other words the multiple choice options would straight-jacket the subjects' response types. If Item 22 had been an MC item, we would not have had this 'fascinating', surprising response disarray.

Apart from being not able to show the whole picture, the multiple-choice format has another limitation: it cannot accurately reflect the developmental facts. We know that subjects' response patterns change over time, from some highly unconventional ones to the standard ones. The four or five options may represent the range of structures at one level, but may not represent the range at another level.

It appears that in a descriptive, fact-finding study of language development, the multiple-choice elicitation format may not serve the purpose well. This does not mean that it has no place at all in developmental studies. It has, if information of the kind collected in this study is available, because the researchers can then make a sensible selection or informed construction of MC options, with which to test (a) larger sample(s).

e) The Letter-writing Elicitation Design

It will be recalled that at the inception of the second study, we were looking for a design which would satisfy the following requirements (section 5.2.1):

1. A task that can be attempted by pupils from Level 1 to Level 5.

2. It will simulate a real communicative activity, so that data on use will be generated.

3. It will focus on the pupils' linguistic ability in expressing given temporal notions.

4. It will elicit/pinpoint use, misuse, and non-use of specific temporal expressions so that quantification can be performed.

5. It will provide a common base for comparing performance at different levels.

The resultant design was in the form of letter-writing.

We may also recall that two relatively novel features were built into the design: first, the discourse format and content were given in the form of instructions; second, the instructions were in Chinese.

Having gone through the whole process of data collection, processing and analysis, we feel that in general the design has served our purposes well. The 'instructions' appeared to have had their effects on the subjects; none went off course in writing the letter, not even the Level 1 subjects. The clarity of the instructions, given in the subjects' mother-tongue, probably played an important part in 'getting the message across'. As a testing procedure, the use of the subjects' mother-tongue in test instructions should be encouraged and promoted.

As has been indicated in section 7.5, the content framework straightened our path to the identification of message abandonment and message restructuring; it was an aid to the subjects in composing and to the researcher in analyzing the letter. The framework also tipped the balance, on many occasions, in our decision process.

CHAPTER EIGHT

IMPLICATIONS FOR FURTHER RESEARCH AND THE CLASSROOM

Now that this work is coming to the finishing line, and it is time to see if we have achieved the objectives set down at the beginning and what may be done in the future.

On the whole, this study has been able to provide an informed answer to each of the questions asked at the beginning. We have been able to show the general pattern and course of development in the subjects' use of tense-aspect and time adverbials, which consisted of distinct 'stages'. We have also identified the relative difficulty of the tense-aspect categories and time adverbials. We have been able to ascertain that message restructuring and language transfer were developmentally based and that message abandonment was not so. We have been able to demonstrate, without the use of sophisticated analytical techniques, that the development and use of tense-aspect and time adverbials showed both systematicity and variability. And finally we have been able to describe in some detail the quantitative and qualitative change in the linguistic evolution of the Present Perfect and durative adverbials. Each of the answers/observations was supported by empirical evidence. The study should, therefore, be considered a success; modest it may be, though .

There are a few thoughts in connection with this study which we would like to share with potential or practising researchers in this area of study.

8.1. Implications for Research

First of all, we think that the line of enquiry into the development and use of tense-aspect and time adverbials should be continued and extended so as to uncover more facts about the acquisition process with respect to these categories. As has been noted by the present writer and other researchers, there is a noticeable lack of research data of temporal expressions in the SLA literature. Research in these areas should, therefore, prove rewarding and at the same time redress the balance.

The present study has examined both the general and the specific development of tense-aspect and time-adverbials. A general development analysis usually provides a general, overall pattern and profile. But if it is at all intended to have potential pedagogical implications, a general tense-aspect developmental picture is not very helpful to teachers or syllabus designers, who would like to have more specific information on the relative difficulty of tense-aspect categories and on how best to present a particular tense to achieve maximum effect on learning. A more detailed study of individual categories across time would yield more specific information and should therefore be potentially more useful to the 'field workers'.

However, even without the pedagogical considerations, an in-depth analysis of a particular category still proves a rewarding endeavour. Our analyses of the Present Perfect in Sections 6.12, 6.13 and 6.14 illustrate the approach we would like to recommend: to explore a problem from various angles; and conclusions based on convergent evidence will make a stronger case.

The second thought we would like to share with researchers is that a developmental framework or design is preferred in SLA investigations. This has been the guiding principle for all the analyses performed here.

In our discussion of message abandonment, message restructuring and language transfer, we pointed out the inadequacy of a synchronic approach to the phenomena. By placing them in a developmental perspective, some very interesting facts emerged. It is our opinion that much more about second language communication/learning strategies will be learned by placing these strategies in a developmental framework. The initial results in this study are encouraging. This recommendation would also imply a more integrated approach to some of the learner's strategies: the integrating/unifying agent or force is the developmental framework or perspective.

The pedagogically relevant analysis of tense-aspect confusion should also merit further research. It would be interesting to see if confusions in other tense-aspect domains also show 'skewed relationship' between members in a confusion pair, and if learners from different language backgrounds show the same patterns of 'skewed relationship'.

The use of the subjects' mother tongue in research task instructions has proved highly successful in terms of getting them to do what was expected of them, even with the lowest proficiency group. We would therefore like to recommend a more extensive use of the subjects' mother tongue where the performance outcome is not affected. Its use is strongly recommended in task instructions which are relatively lengthy and complex.

8.2. Pedagogical Implications

One set of findings relevant to language teaching appears to be those from the tense-aspect confusion studies. It was noted (6.12) that the use of the Present Perfect showed confusion patterns relatable, in a general way, to the subjects' proficiency levels. Thus, lower level subjects were found to confuse the Present Perfect more with the Simple Present, while the confusion between the Present Perfect and the Past Perfect was more often found with higher level subjects. And then within each confusion pair, there was a tendency for one of the members to get generalized more often to the other (cf. Figure 7.2, p.313). These developmental facts could be exploited to the teacher's advantage. Specific teaching procedures can be devised, which pin-point the generalization problems at a particular level. In this case, the teaching of the Present Perfect becomes more focal in scope and aim, and the problem at that stage gets more adequate treatment.

Also related to the Present Perfect is the notion of 'current relevance', which, we noted, proved conceptually difficult for the subjects to grasp. It presents the teacher and course designer with the challenge to prepare teaching programmes and procedures which will lead the pupils to properly understand the notion of 'current relevance' and to use the Present Perfect appropriately. The 'contextual' approach seems to be a relatively effective technique in teaching the notion of 'current relevance'.

The results from the time adverbial analyses (cf. 6.10 and 6.16) have further pedagogical implications. As with the Present Perfect, the developmental information gathered from adverbial development could be exploited, pinpointing specific adverbial problems at a certain stage/level.

Appendix 1: Cantonese Pronunciation Guide

The following table lists a set of symbols used in the pronunciation transcriptions of Cantonese sentences cited in this study. The majority of the symbols are those of the International Phonetic Alphabet (IPA). However, some of the symbols depart from the IPA because of the typographical limitations/convenience. For example, the nasal velar /ŋ/ is represented as /ng/ in the table, the affricate /tʃ/ is represented as /ch/, etc. It is therefore suggested that the reader should derive the values from the key-words accompanying the symbols.

Having said that, it should also be pointed out that some of these values are only close approximations of the true Cantonese values. Take, for instance, the Cantonese term go go ('elder brother'). The Cantonese pronunciation of g is 'unaspirated, voiceless velar', to be contrasted with k which is 'aspirated, voiceless velar'. But since our study is not a pure phonological investigation of Cantonese, we shall accept the pronunciation glosses, for practical purposes.

Consonantal Symbols

b	as in	boy
ch		chin
d		dive
f		far
g		guard
gw		Guam
h		hay
j		jaw
k		king
l		lord
m		may
n		navy
ng		sing
p		par
s		sit
t		tar
y		yes

Vocalic Symbols

a	as in	Abib
a:		army
ai		dive
au		how
e		set
ei		bay
eu		deux (French)
eui	(gloss not available)	
ʌ		cut
ʌi	(gloss not available)	
i		busy
i:		see
m	(syllabic m)	
o		organ
oi		boy
ou		cold
u		pull
u:		shoe
ui	(gloss not available)	
yu		fury

Appendix 2

Notes for the Summary Tables; Error Distribution Tables, and Graphs

a) Level I, II, III, IV & V = Secondary 1, 2, 3, 4 & 5

b) Abbreviations:

A1 = Present Simple Tense
A2 = Present Progressive
A3 = Present Perfect
A4 = Present Perfect Progressive
A5 = Present Participle (that carries 'aspectual force')

B1 = Past Simple Tense
B2 = Past Progressive
B3 = Past Perfect
B4 = Past Perfect Progressive
B5 = Past Future (e.g. 'He feared that his money would be stolen')

C1 = Future Simple Tense ('shall' & 'will' with future reference)

C2 = Future Progressive

M1 = 'Present' Modals ('can', 'may', 'must', etc.)
M2 = 'Past' Modals ('could', 'should', etc.)
MP = Modal Perfect (e.g. 'should have done')

Inf = Infinitive

O = Omission of the verb phrase which carries tense and/or aspect

PO = Partial omission of the verb phrase which affects the tense/aspect reading

FORM= Formation (e.g. 'I was went to see my uncle.')

c) 'Obligatory Context' = discoursal context in which a certain tense and/or aspect is obligatorily required

'Actual Production' = a tense-aspect form which is actually used in an obligatory or non-required context

Appendix 3 : Sample Score-sheet (1st Study)

Fung Siu Fong (3C)

Date of Assignment		A1	A2	A3	B1	B2	B3	C1	Total
18/9					26 5 1 1 1 (A1)(O)(PO)(u)	2	2 1 1 (A1)(u)		29 10
12/10	[Obl.Contexts]	21		2					23
	[No.of errors]	1		1 1					3
	[Error Categ-ories]	(u)		(A1)(B1)					
8/11		1			33 1 1 (A1)(u)	2 1 (u)			36 3
27/11		6	1 1 (M2)						7 1
14/12					28 2 3 (u)(A1)	2	1 1 (B1)		31 6
17/1		3 1 (B1)		2	25 1 (A1)				30 2
25/2		12 8 (B1)		3 2 (u)	1 1 (u)				16 11
21/3		16 1 1 (A2)(A3)						2 1 (PO)	18 3
18/4		1			42 5 2 (A1)(u)		3		46 7
7/5					19 1 (B3)	1	1 1 (B1)		21 2
28/5		20 1 (u)	1	3 1 (u)	4	1 1 (A3)	1 1 (A3)	1	31 4
		80 13	2 1	10 5	178 25	7 2	8 5	3 1	288 52
		83.75	50	50	85.96	71.43	37.5	66.67	81.94(%)

Appendix 4: Composition Instructions in Chinese

英文作文

題目：寫一封英文信給你一位很久沒有見面的小學同學。
（他/她的名字叫 Paul / Pauline，現時在另一間中學讀書。）

方法：各位同學在作文時，必須依照下列內容大綱寫作。
但如有需要，可以增補有關內容。

內容大綱，共分四段：

第一段：
1. 提及你倆很久沒有見面。
2. 問候他/她的近況。

第二段：提及
1. 自從離開小學後，你一直在 xxx 中學讀書。
2. 現時的同學（classmates / schoolmates）。
3. 上學期（first-term）的學業成績（academic results）。

第三段：提及
1. 兩天前放學回家途中，遇到一位八個月沒有見面的小學同學 Joseph / Josephine。
2. 在小六時，他/她曾多次幫助你解決（solve）功課上的困難（academic problems / problems in school work）[請舉例]。
3. 你未認識他/她以前，你的成績一直不大好/滿意（unsatisfactory）。你倆成為朋友後，他/她幫助你取得好成績。
4. 假如（if）你不是認識了他/她，你可能沒有機會（opportunity）升讀中學。

第四段：提及
1. 你正在預備（prepare for）下星期的測驗。
2. 你已邀請 Joseph / Josephine 及幾位小學同學在下星期六下午二時到你家中會面，然後一同去看電影。
3. 問 Paul / Pauline 可不可以在那日到你家，又希望他/她盡快（as soon as possible）回覆你。

Appendix 5: Fill-in-blank Test Paper

School:_____ Name: (Chinese)_____

Class :_____ Class No._____ (English)_____

USE OF TENSES

Instructions: Fill in each of the following blanks with an appropriate tense form, using the verb provided in the bracket.

Examples :

1. [At a party]

   John: (you enjoy) Are you enjoying yourself?
   Mary: Oh, yes. Very much.
   John: Would you like to go to another one next weekend?
   Mary: Yes. I'd love to.

2. [With Mr. Chow on the stage, the Headmaster is making an announcement to his pupils at the morning assembly (早會).]

   Boys and girls,
   I'm very happy to tell you that Mr. Chow, a famous doctor, (visit) is visiting our school today. Some of you may know that Mr. Chow (be) is a former student of our school ....

---

1. Mr. Wong moved to Wan Chai last month. He (not live) _____ here any more.

2. Whenever John came to Hong Kong, he always (visit) _____ his old friends.

3. John: Do you have any idea what you (do) _____when you leave school?
   Paul: No, I haven't thought about that.

4. John: Hurry up, Mary. We'll be late.
   Mary: I (hurry) _____. I can't move any faster.

5. [On the telephone]

   John : Hello. May I speak to Mr. Wong, please?
   Secretary: I'm sorry. You're too late to catch Mr. Wong. He (go) _____ out for lunch already.
   John : That's all right. I'll try again later. Thank you.

6. Paul: Why does Peter look so happy today?
   Mary: He (win) _____ a big prize in the lucky draw last week.
   Mary: Oh, no wonder.

7. "John, who was the beautiful girl you (talk) _____ to when I passed you in the street this morning?"

8. Yesterday, John went shopping with his sister. They bought some toys which (make) _____ of wood.

9. "There are a lot of dark clouds in the sky. I think that it (go) _____ to rain soon."

10. When I first entered school, I could not speak a word of English. I (never study) _____ it before.

11. "I'm very sorry, John, I (listen) _____ to the radio when you rang the bell the first time, and that's why I did't hear you."

12. [At a party]
    John: Excuse me. I don't think we (meet) _____ each other before? My name is John Wong.
    Paul: How do you do. I'm Paul Chan.

13. "If we don't leave now, the meeting (be) _____ over by the time we get there."

14. The test results were much better than the students (expect) _____.

15. Mary: Did you enjoy the movie last night?
    Paul: Well ... it was OK.
    Mary: Do you mean you (not like) _____ it?
    Paul: No, I don't mean that.

16. Last week John bought a bicycle and the practised riding it all week. Now he (know) _____ how to ride his bicycle.

17. "Hi, John, I didn't see you last night. What (you do) _____ yesterday at 9:00 p.m.?

18. "Dear John,
    How are you these days? I'm very well. I (write) _____ _____ to you now because I need you help ...."

19. Last week I went to see a movie. The name of the movie (be) _____ _____ 'The Sound of Music'.

20. "Oh, you've finished washing the car already. That was quick. When I passed here ten minutes ago, you (just start) _____ .

21. The new office boy is hard-working, and has a good personality (人品). I think he (get) _____ a higher or better position in a year's time.

22. Although we have lived in this area for two years, we (not get) _____ _____ to know many people yet.

23. Mr. and Mrs. Wong have two sons. The elder son (be) _____ married, and his wife is a good cook.

24. Mary: Was the movie good last night?
John: It was boring! (沉闷)
Mary: I'm glad I asked you because I (think) _____ of going to see it.

25. John: Did you see your friend last night?
Mary: No, I was half an hour late. When I got there, he (already go) _____ home.

26-29. [Last week John wrote a letter to Paul, and suggested that they meet each other on Friday, 19th March, in the Good Luck Restaurant at 2:00 p.m. The following is Paul's reply.]

Dear John,

What a surprise! I (be) _____ glad to receive your letter, and (be) _____ pleased to meet you on 19th March at the restaurant. Please wait for me if I (be) _____ a little late because I have an important meeting in the morning, but I (try) _____ my best to be there at 2:00 p.m.

Yours ever,
Paul

30. My sister and I went to Ocean Park last Saturday. It was the first time my sister (visit) _____ the Park.

31-32. Dear Librarian,

I am very sorry to tell you that I (lose) _____ _____ two books, which I borrowed from the library. I left them on a bus on my way home last Friday. If the books are found, I (return) _____ them to the library as soon as possible.

33. Two weeks ago, John went for a driving test. he (still wait) _____ _____ to hear the results of the test.

34. I went to see Paul yesterday. But when I got to his house, I found he (go) _____ out.

35-37. Dear John,

How are you these days? I haven't written to you for some time. I (feel) _____ very sorry about that.

After I arrived in London, I first (go) _____ around the city to find a flat to live ....

In these few weeks, I (make) _____ many English friends although my English is not very good.

... Best regards.

Peter

38. Mary: What was the population of Hong Kong in 1950?
John: About 2 million, I think.
Mary: What's the population now in 1982?
John: It's grown to 5 million, and it (grow) _____ all the time.

39. Paul: John told me that something happened to you yesterday.
Mary: Well. I (walk) _____ across the park when suddenly two yound men stopped me and asked me for money.

40. Last year Peter wanted to change school, and so he started applying to (申請) several schools. He (already apply) _____ to more than five schools before he was able to get a place here.

41. [A policy detective is questinoing John]

Dec.: Well, you said you saw Mr. Chan yesterday. Have you seen him since then?
John: Today, you mean? No, I (not see) _____ him today.

42. A fishing boat sank in a storm yesterday. Five people died in the accident, and three (still miss) _____ .

43. John stayed in the temple for the night. What he got up the next morning, the sun (already shine) _____ brightly.

44. Mary: [Complaining] There's so much work to do. I don't know how I'm going to get everything done in time.
Anne: Don't worry, Mary. I (help) _____ you. Just tell me what needs to be done.

45. Mary: There was a fire next door last night.
John: How did the fire start?
Mary: I (not know) _____ yet.

46. Paul: Are you going swimming with us?
John: No, I can't. I (break) _____ my leg.

47. [On the telephone]
John : May I speak to Mr. Chan, please?
Secretary: I'm sorry. Mr. Chan is out. He (say) _____ he should be back by three o'clock in the afternoon.
John : I'll try in the afternoon then. Thank you.

48. Anne: How's your brother Paul?
Mary: Very well, thank you.
Anne: Where is he?
Mary: He (stay) _____ with Uncle Tom in the New Territories at the moment.

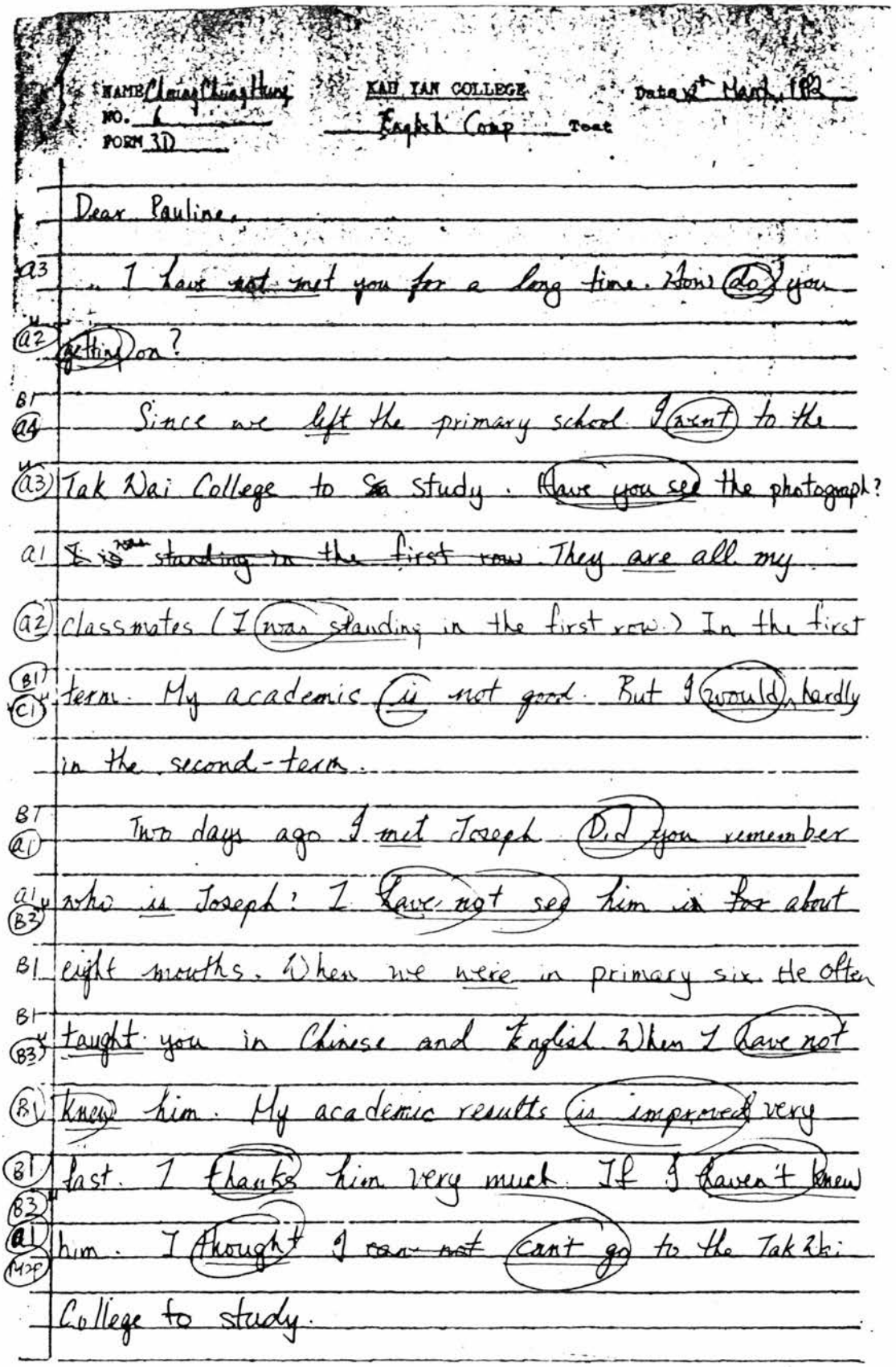
49. Detective: What time did you leave the party?
John : I left at 10 o'clock.
Detective: And what (you do) _____ between 10:00 and 11:30 last night?
John : ....

50. John: Think of my suggestion, Paul.
Paul: Yes, I'll think about it. But I won't decide till I (speak) _____ to my father.

- End of Exercise -

Attention: Check you answers if time allows.

Appendix 6: Sample Copy of a Marked Composition (2nd Study)



NAME Cheung Chung Hung KAU YAN COLLEGE Date 4th March, 1992
NO. 6 English Comp Test
FORM 3D

Dear Pauline,

a3 I have not met you for a long time. How (do) you
a2 getting on?

B1 a4 Since we left the primary school I went to the
a3 Tak Wai College to ~~Sa~~ study. Have you see the photograph?
a1 ~~I is you standing in the first row~~. They are all my
a2 classmates (I was standing in the first row.) In the first
B1 C1 term. My academic is not good. But I would hardly
in the second-term.

B1 a1 Two days ago I met Joseph. Did you remember
a1 B3 who is Joseph? I have not see him in for about
B1 eight months. When we were in primary six. He often
B1 B3 taught you in Chinese and English. When I have not
B1 knew him. My academic results is improved very
B1 B3 fast. I thanks him very much. If I haven't knew
a1 M2F him. I thought I can not can't go to the Tak Wai
College to study.

NAME Chung Chung Hung
NO. 6
FORM SD

KAU YAN COLLEGE
English Comp Test

Date 14th March 1982

Howaday. I was prepare for the History text in the next Friday. In this time I must hardly very much and get the highest mark in the class. I invited Joseph and some old friends. In the next Saturday go to my home meeting. Then in the two o'clock. we were go to the Derrick Sin cinema to watch the film. (Wonderful Land). I wish that day you would go to my home to joint with us. And I hope you can write the letter as soon as you can.

Love
Arthur

Appendix 7 : Sample Score-sheet (2nd Study)

HFT Level 1 — 7-Tense Analysis of Letter-Writing

Subject's Class No.		A1	A2	A3	B1	B2	B3	C1	Total	Individual's Scores(%)
10	[Obl.Contexts]	4	1	1	13	2	3	4	28	
	[No.of Errors]	1	1		6	2	3	2	16	42.86
	[% Correct]	50	0	100	53.86	0	0	50		
20		13	1	1	13	1	3		32	
		2	1	1	8	1	3		16	50.00
		84.62	0	0	38.46	0	0			
7		2	1	2	4	1	2	1	13	
			1	2	4	1	2	1	11	15.38
		100	0	0	0	0	0	0		
28		3	2	2	8	1	3	1	20	
			1	2	7	1	3	1	15	25.00
		100	50	0	12.5	0	0	0		
7		6	2	2	10		3	1	24	
			1	2	4		3	1	11	54.17
		100	50	0	60		0	0		
27		9	1	2	14	1	3	2	32	
		1	1	2	12	1	3	2	22	31.25
		88.89	0	0	14.29	0	0	0		
5		3	1	2	9		2	2	19	
		1	1	1	8		2	2	15	21.05
		66.7	0	50	11.11		0	0		
15		4	1	2	8		2	1	18	
		2	1	1	6		2	1	13	27.78
		50	0	50	25		0	0		
5		3	1	2	6	1	1	1	15	
		2	1	1	5	1	1	1	12	20.00
		33.33	0	50	16.67	0	0	0		
27		4	2	4	9	1	3	1	24	
		1	2	4	9	1	3	1	21	12.50
		75	0	0	0	0	0	0		
		51	13	20	94	8	25	14	225	
		11	11	16	69	8	25	12	152	
		78.43	15.38	20	26.60	0	0	14.29		

Appendix 8: Sample Work-sheet for Adverbial Analysis

FORM 5 MAN SANG COLLEGE

(i) Chan Kam Pong P/2a (1) I have not seen you for three years.
C/(1b) (2) After I had left my primary school, I study in Mansang College.
P/2a (3) I have been studing there for five years, and
S/1a now, I am studing at form five.
(4) We treat the others just like brothers or sisters and we do not have any argue or quarrel
S/(1b) before.
S/3ai (5) Moreover, we study very hard in every lesson, even a fly flies in the class can also be heard.
P/1a (6) last week, I had received my academic results of the first-term
P/(1b) (7) Two days before, I met my friend, Joseph,
C/1a who was my classmate when we were both in primary.
P/2a (8) I had not seen him for eight months.
C/1a (9) When we were studying in primary six, he
S/3b always (help) me to solve the academic problem.
S/3b (10) He always (teaches) me how to make a good composition, and solve the hard problems in Mathematics, etc.
C/1b (11) Before I know him, my academic results (were) too hard that no teachers would notice about me.
C/1b (12) But after we became friends, he helped my study very much, so I get much better in my academic results.
P/2b (13) During recent days, I am spending my time on preparing the test (on)
P/1a last week.
(14) I want to (visit) Joseph and some of our primary classmates to (visit) my
P/1a S/1b house next Saturday afternoon, we shall go to see a film.
P/1b (15) Please write me a letter as soon as possible
S/1b S/1b (16) We are looking forward to seeing you soon.

Appendix 9(a): Sample Score-sheet for Adverbial Analysis

MSC Level 5 (N=10)

Incorrect				Correct				
Clause	Phrase	Singleton	Sub-total	Clause	Phrase	Singleton	Sub-total	Grand Total
1	2	1	4	4	7	7	18	22
1	1	1	3	4	11	9	24	27
3	2	/	5	5	7	11	23	28
3	2	/	5	3	9	9	21	26
5	5	/	10	1	10	4	15	25
1	4	/	5	5	4	3	12	17
1	3	/	4	4	10	4	18	22
1	1	/	2	1	11	7	19	21
2	4	/	6	1	13	8	22	28
3	7	/	10	1	3	6	10	20
21	31	2	(54)	29	85	68	(182)	(236)

Appendix 9(b): Sample Score-sheet (Summary) for Adverbial Analysis

All Levels x 3 Schools

	Incorrect				Correct				
Form 1	Clause	Phrase	Singleton	Sub-total	Clause	Phrase	Singleton	Sub-total	Grand Total
MSC	27	44	5	76	9	31	20	60	136
KYC	27	46	10	83	4	24	21	49	132
HFT	23	64	9	96	2	13	11	26	122
Overall:	77	154	24	255	15	68	52	135	390
Form 2									
MSC	24	48	2	74	18	51	37	106	180
KYC	27	46	5	78	17	33	23	73	151
HFT	32	70	5	107	2	20	30	52	159
Overall:	83	164	12	259	37	104	90	231	490
Form 3									
MSC	19	50	3	72	17	66	36	119	191
KYC	16	35	4	55	9	39	29	77	132
HFT	21	60	5	86	19	42	33	94	180
Overall:	56	145	12	213	45	147	98	290	503
Form 4									
MSC	25	39	2	66	12	83	34	129	195
KYC	24	30	2	56	12	62	28	102	158
HFT	22	48	6	76	11	68	35	114	190
Overall:	71	117	10	198	35	213	97	345	543
Form 5									
MSC	21	31	2	54	29	85	68	182	236
KYC	13	25	3	41	27	82	55	164	205
HFT	17	28	6	51	19	93	69	181	232
Overall:	51	84	11	146	75	260	192	527	673

Appendix 10: Subjects' Performance Scores (%) for 7 Tenses (LW)

Sch.	Level	A1	A2	A3	B1	B2	B3	C1
1	1	50.00	00.00	100.00	53.85	00.00	00.00	50.00
1	1	84.62	00.00	00.00	38.46	00.00	00.00	.
1	1	100.00	00.00	00.00	00.00	00.00	00.00	00.00
1	1	100.00	50.00	00.00	12.50	00.00	00.00	00.00
1	1	100.00	50.00	00.00	60.00	.	00.00	00.00
1	1	88.89	00.00	00.00	14.29	00.00	00.00	00.00
1	1	66.70	00.00	50.00	11.11	.	00.00	00.00
1	1	33.33	00.00	50.00	16.67	00.00	00.00	00.00
1	1	50.00	00.00	50.00	25.00	.	00.00	00.00
1	1	75.00	00.00	00.00	00.00	00.00	00.00	00.00
1	2	33.33	.	.	31.25	.	00.00	33.33
1	2	75.00	00.00	00.00	40.00	.	00.00	00.00
1	2	66.67	00.00	00.00	70.00	100.00	00.00	50.00
1	2	62.50	00.00	00.00	33.33	00.00	00.00	66.67
1	2	83.33	50.00	00.00	41.67	.	00.00	100.00
1	2	100.00	00.00	00.00	00.00	.	00.00	00.00
1	2	100.00	00.00	00.00	62.50	00.00	00.00	00.00
1	2	80.00	00.00	00.00	14.29	.	00.00	00.00
1	2	100.00	.	00.00	00.00	00.00	00.00	00.00
1	2	91.00	00.00	00.00	63.64	.	00.00	100.00
1	3	100.00	00.00	00.00	50.00	00.00	00.00	00.00
1	3	81.25	00.00	00.00	33.33	.	00.00	25.00
1	3	100.00	50.00	00.00	75.00	.	100.00	66.67
1	3	100.00	.	100.00	78.57	.	66.67	00.00
1	3	100.00	00.00	50.00	62.50	.	00.00	00.00
1	3	100.00	100.00	00.00	50.00	00.00	00.00	50.00
1	3	100.00	00.00	00.00	00.00	00.00	00.00	00.00
1	3	75.00	00.00	00.00	37.50	00.00	00.00	50.00
1	3	100.00	100.00	66.67	64.29	100.00	100.00	100.00
1	3	100.00	100.00	50.00	85.71	100.00	33.33	100.00
1	4	100.00	100.00	33.33	65.00	.	25.00	66.67
1	4	100.00	00.00	00.00	13.33	.	00.00	50.00
1	4	83.33	00.00	00.00	42.86	00.00	00.00	.
1	4	91.67	50.00	00.00	84.62	.	00.00	50.00
1	4	80.00	100.00	00.00	45.45	.	40.00	.
1	4	76.92	100.00	100.00	37.50	00.00	00.00	.
1	4	87.50	100.00	00.00	14.29	00.00	00.00	.
1	4	87.50	.	33.33	61.54	50.00	00.00	.
1	4	100.00	100.00	33.33	87.50	.	00.00	66.67
1	4	77.78	50.00	00.00	63.64	.	00.00	50.00
1	5	81.25	00.00	33.33	72.22	.	00.00	66.67
1	5	100.00	20.00	50.00	63.64	00.00	33.33	66.67
1	5	90.91	100.00	00.00	50.00	.	50.00	100.00
1	5	90.00	100.00	16.67	56.25	.	50.00	00.00
1	5	100.00	100.00	100.00	78.95	.	100.00	55.56
1	5	90.91	100.00	66.67	35.71	100.00	00.00	100.00
1	5	100.00	100.00	50.00	90.91	00.00	00.00	66.67
1	5	92.86	50.00	50.00	00.00	.	00.00	42.86
1	5	92.31	50.00	33.33	68.75	100.00	33.33	100.00
1	5	85.71	50.00	00.00	56.25	00.00	33.33	100.00

Sch.	Level	A1	A2	A3	B1	B2	B3	C1
2	1	100.00	00.00	00.00	62.50	00.00	00.00	00.00
2	1	75.00	00.00	50.00	37.50	00.00	00.00	00.00
2	1	62.50	00.00	66.67	54.55	.	00.00	00.00
2	1	75.00	00.00	50.00	54.55	00.00	00.00	00.00
2	1	100.00	00.00	00.00	00.00	00.00	00.00	00.00
2	1	100.00	50.00	00.00	10.00	00.00	00.00	00.00
2	1	100.00	00.00	00.00	00.00	.	00.00	50.00
2	1	90.91	00.00	00.00	12.50	.	00.00	50.00
2	1	100.00	00.00	00.00	12.50	.	00.00	00.00
2	1	100.00	00.00	00.00	20.00	00.00	.	00.00
2	2	100.00	00.00	00.00	25.00	.	00.00	00.00
2	2	100.00	00.00	00.00	5.56	.	00.00	00.00
2	2	66.67	00.00	00.00	25.00	.	00.00	00.00
2	2	57.14	00.00	00.00	00.00	00.00	00.00	00.00
2	2	60.00	00.00	00.00	75.00	.	00.00	00.00
2	2	66.67	.	00.00	50.00	00.00	00.00	00.00
2	2	100.00	00.00	25.00	00.00	00.00	00.00	100.00
2	2	90.91	100.00	25.00	76.92	.	00.00	100.00
2	2	100.00	100.00	50.00	100.00	100.00	25.00	00.00
2	2	81.82	100.00	50.00	33.33	00.00	33.33	50.00
2	3	100.00	100.00	66.67	62.50	.	33.33	.
2	3	50.00	50.00	100.00	62.50	00.00	00.00	00.00
2	3	71.43	100.00	66.67	62.50	00.00	00.00	100.00
2	3	100.00	100.00	100.00	83.33	100.00	66.67	100.00
2	3	42.86	50.00	50.00	63.64	00.00	00.00	00.00
2	3	100.00	00.00	00.00	28.57	100.00	00.00	33.33
2	3	100.00	100.00	100.00	20.00	100.00	00.00	50.00
2	3	71.43	00.00	33.33	57.14	.	00.00	00.00
2	3	82.35	25.00	00.00	16.67	.	00.00	100.00
2	3	100.00	.	00.00	66.67	00.00	00.00	.
2	4	90.00	00.00	33.33	40.00	100.00	00.00	50.00
2	4	100.00	00.00	50.00	100.00	.	40.00	50.00
2	4	60.00	00.00	00.00	22.22	00.00	00.00	50.00
2	4	100.00	100.00	33.33	62.50	100.00	25.00	100.00
2	4	100.00	.	33.33	80.00	.	50.00	100.00
2	4	94.74	100.00	50.00	75.00	00.00	00.00	100.00
2	4	94.12	33.33	40.00	41.67	00.00	00.00	50.00
2	4	77.78	00.00	00.00	71.43	.	33.33	33.33
2	4	84.62	50.00	33.33	33.33	00.00	00.00	33.33
2	4	81.82	50.00	50.00	18.18	00.00	00.00	100.00
2	5	90.91	100.00	00.00	58.33	100.00	75.00	100.00
2	5	100.00	100.00	50.00	87.50	100.00	00.00	.
2	5	100.00	66.67	33.33	55.56	.	00.00	100.00
2	5	100.00	100.00	50.00	100.00	.	80.00	100.00
2	5	91.67	50.00	50.00	56.25	00.00	00.00	71.43
2	5	100.00	100.00	50.00	75.00	33.33	00.00	100.00
2	5	100.00	100.00	75.00	72.73	50.00	00.00	80.00
2	5	94.74	100.00	100.00	37.50	.	00.00	100.00
2	5	100.00	100.00	80.00	92.86	.	40.00	100.00
2	5	100.00	66.67	100.00	85.71	00.00	50.00	100.00

Sch.	Level	A1	A2	A3	B1	B2	B3	C1
3	1	00.00	00.00	00.00	33.33	00.00	00.00	00.00
3	1	75.00	00.00	100.00	33.33	.	33.33	.
3	1	50.00	00.00	00.00	80.00	00.00	00.00	33.33
3	1	90.00	50.00	75.00	62.50	00.00	00.00	.
3	1	66.67	00.00	00.00	16.67	00.00	00.00	00.00
3	1	50.00	00.00	00.00	66.67	.	00.00	00.00
3	1	70.00	00.00	00.00	50.00	00.00	00.00	50.00
3	1	100.00	00.00	00.00	71.43	00.00	00.00	100.00
3	1	66.67	00.00	00.00	63.64	00.00	25.00	50.00
3	1	100.00	00.00	00.00	62.50	00.00	00.00	100.00
3	2	75.00	00.00	00.00	18.18	.	00.00	00.00
3	2	70.00	00.00	50.00	70.00	.	00.00	00.00
3	2	100.00	66.67	100.00	100.00	50.00	00.00	100.00
3	2	50.00	00.00	00.00	80.00	.	00.00	00.00
3	2	90.00	00.00	00.00	00.00	00.00	00.00	100.00
3	2	60.00	50.00	00.00	31.25	.	00.00	00.00
3	2	80.00	00.00	50.00	25.00	00.00	00.00	00.00
3	2	87.00	00.00	00.00	33.33	.	00.00	100.00
3	2	85.71	.	100.00	62.50	100.00	00.00	66.67
3	2	50.00	00.00	100.00	81.82	00.00	00.00	50.00
3	3	75.00	100.00	100.00	14.29	.	00.00	100.00
3	3	84.62	100.00	50.00	53.85	00.00	50.00	100.00
3	3	100.00	50.00	50.00	58.33	00.00	00.00	100.00
3	3	88.89	00.00	100.00	83.33	00.00	00.00	50.00
3	3	80.00	00.00	00.00	63.64	00.00	00.00	66.67
3	3	90.91	100.00	80.00	86.36	00.00	33.33	100.00
3	3	100.00	100.00	50.00	66.67	.	00.00	100.00
3	3	90.00	00.00	00.00	35.29	.	00.00	100.00
3	3	100.00	100.00	33.33	50.00	.	00.00	50.00
3	3	20.00	00.00	25.00	72.22	00.00	00.00	00.00
3	4	100.00	50.00	100.00	15.38	.	00.00	40.00
3	4	83.33	50.00	71.43	33.33	.	00.00	25.00
3	4	94.74	33.33	00.00	40.00	100.00	20.00	50.00
3	4	100.00	100.00	100.00	75.00	00.00	00.00	00.00
3	4	100.00	100.00	75.00	60.00	.	50.00	00.00
3	4	100.00	100.00	100.00	81.82	00.00	00.00	00.00
3	4	95.65	100.00	75.00	37.50	.	00.00	100.00
3	4	100.00	100.00	100.00	68.75	100.00	33.33	75.00
3	4	95.00	100.00	75.00	50.00	100.00	00.00	100.00
3	4	83.33	100.00	00.00	53.33	00.00	33.33	100.00
3	5	100.00	100.00	50.00	87.50	.	50.00	100.00
3	5	100.00	.	75.00	92.86	.	71.43	100.00
3	5	95.00	100.00	100.00	53.33	100.00	100.00	100.00
3	5	88.89	100.00	75.00	84.62	.	50.00	100.00
3	5	100.00	100.00	100.00	53.33	100.00	33.33	100.00
3	5	100.00	33.33	50.00	87.50	.	33.33	100.00
3	5	83.33	75.00	75.00	86.96	00.00	00.00	00.00
3	5	100.00	.	50.00	78.57	100.00	33.33	100.00
3	5	61.11	00.00	50.00	66.67	100.00	00.00	80.00
3	5	92.31	100.00	50.00	42.11	100.00	00.00	100.00

Appendix 11: Subjects' Performance Scores (%) for 7 Tenses (FIB)

Sch.	Level	A1	A2	A3	B1	B2	B3	C1
1	1	33.3	00.0	28.6	42.9	00.0	00.0	14.3
1	1	33.3	14.3	57.1	71.4	20.0	00.0	71.4
1	1	00.0	00.0	00.0	28.6	00.0	00.0	00.0
1	1	00.0	14.3	00.0	71.4	00.0	00.0	00.0
1	1	40.0	57.1	00.0	14.3	00.0	00.0	00.0
1	1	33.3	42.9	42.9	57.1	00.0	00.0	42.9
1	1	00.0	00.0	42.9	14.3	00.0	00.0	00.0
1	1	16.7	00.0	00.0	14.3	00.0	00.0	00.0
1	1	33.3	42.9	57.1	57.1	00.0	00.0	14.3
1	1	20.0	42.9	00.0	00.0	00.0	00.0	00.0
1	2	20.0	14.3	28.6	28.6	00.0	00.0	42.9
1	2	20.0	00.0	00.0	57.1	00.0	00.0	00.0
1	2	50.0	42.9	00.0	28.6	00.0	00.0	00.0
1	2	00.0	42.9	00.0	71.4	00.0	00.0	42.9
1	2	16.7	14.3	00.0	28.6	00.0	00.0	00.0
1	2	16.7	28.6	42.9	14.3	20.0	00.0	00.0
1	2	50.0	28.6	00.0	14.3	20.0	00.0	00.0
1	2	40.0	14.3	14.3	42.9	00.0	00.0	14.3
1	2	33.3	00.0	00.0	14.3	00.0	00.0	14.3
1	2	33.3	00.0	00.0	28.6	00.0	00.0	00.0
1	3	00.0	00.0	14.3	57.1	00.0	00.0	14.3
1	3	66.7	28.6	14.3	71.4	80.0	16.7	28.6
1	3	33.3	28.6	00.0	00.0	20.0	00.0	42.9
1	3	16.7	42.9	14.3	42.9	40.0	16.7	71.4
1	3	33.3	00.0	14.3	57.1	80.0	00.0	28.6
1	3	16.7	42.9	00.0	71.4	00.0	00.0	42.9
1	3	16.7	14.3	14.3	85.7	20.0	00.0	28.6
1	3	33.3	28.6	00.0	85.7	00.0	00.0	00.0
1	3	66.7	57.1	28.6	42.9	20.0	00.0	71.4
1	3	33.3	57.1	57.1	42.9	00.0	33.3	85.7
1	4	66.7	71.4	85.7	71.4	80.0	83.3	14.3
1	4	66.7	85.7	71.4	28.6	80.0	83.3	57.1
1	4	50.0	14.3	28.6	57.1	40.0	16.7	71.4
1	4	16.7	42.9	42.9	28.6	20.0	00.0	85.7
1	4	80.0	14.3	85.7	28.6	60.0	50.0	85.7
1	4	16.7	57.1	14.3	42.9	40.0	00.0	71.4
1	4	66.7	28.6	28.6	28.6	20.0	00.0	42.9
1	4	16.7	57.1	28.6	71.4	60.0	83.3	14.3
1	4	33.3	85.7	57.1	42.9	60.0	00.0	71.4
1	4	50.0	71.4	71.4	42.9	80.0	66.7	71.4
1	5	16.7	85.7	42.9	57.1	20.0	50.0	71.4
1	5	33.3	71.4	42.9	71.4	80.0	83.3	57.1
1	5	50.0	57.1	85.7	57.1	60.0	60.0	57.1
1	5	50.0	85.7	42.9	42.9	80.0	33.3	85.7
1	5	33.3	57.1	71.4	42.9	60.0	33.3	71.4
1	5	33.3	42.9	42.9	57.1	40.0	83.3	71.4
1	5	66.7	85.7	42.9	42.9	80.0	50.0	71.4
1	5	66.7	57.1	85.7	57.1	60.0	66.7	100.0

Sch.	Level	A1	A2	A3	B1	B2	B3	C1
2	1	50.0	00.0	00.0	14.3	00.0	00.0	14.3
2	1	33.3	42.9	28.6	42.9	00.0	00.0	57.1
2	1	33.3	14.3	57.1	57.1	00.0	00.0	42.9
2	1	66.7	28.6	28.6	00.0	00.0	00.0	00.0
2	1	33.3	14.3	28.6	42.9	00.0	00.0	42.9
2	1	33.3	42.9	14.3	71.4	00.0	00.0	28.6
2	1	00.0	57.1	28.6	28.6	00.0	00.0	28.6
2	1	83.3	57.1	00.0	28.6	00.0	00.0	00.0
2	1	00.0	00.0	00.0	28.6	00.0	00.0	14.3
2	1	50.0	14.3	00.0	28.6	00.0	00.0	00.0
2	2	33.3	85.7	57.1	42.9	20.0	00.0	85.7
2	2	20.0	71.4	85.7	57.1	20.0	20.0	71.4
2	2	16.7	57.1	28.6	71.4	20.0	00.0	71.4
2	2	50.0	28.6	42.9	14.3	40.0	66.7	57.1
2	2	00.0	14.3	14.3	57.1	20.0	00.0	00.0
2	2	33.3	28.6	00.0	57.1	00.0	00.0	42.9
2	2	00.0	57.1	14.3	71.4	20.0	50.0	85.7
2	2	66.7	00.0	00.0	28.6	00.0	00.0	28.6
2	2	33.3	42.9	00.0	42.9	00.0	00.0	42.9
2	2	16.7	14.3	00.0	28.6	40.0	00.0	42.9
2	3	50.0	71.4	57.1	71.4	60.0	83.3	85.7
2	3	33.3	85.7	71.4	71.4	60.0	50.0	71.4
2	3	16.7	42.9	85.7	28.6	80.0	100.0	71.4
2	3	33.3	85.7	85.7	42.9	100.0	66.7	85.7
2	3	33.3	14.3	14.3	71.4	20.0	33.3	57.1
2	3	16.7	42.9	00.0	57.1	60.0	00.0	28.6
2	3	33.3	42.9	42.9	85.7	60.0	00.0	14.3
2	3	16.7	14.3	14.3	42.9	60.0	00.0	28.6
2	3	16.7	57.1	42.9	57.1	60.0	16.7	71.4
2	3	00.0	28.6	42.9	28.6	20.0	16.7	14.3
2	4	33.3	00.0	42.9	57.1	60.0	83.3	57.1
2	4	33.3	28.6	28.6	28.6	60.0	16.7	85.7
2	4	33.3	71.4	71.4	71.4	100.0	66.7	100.0
2	4	50.0	57.1	42.9	57.1	40.0	16.7	71.4
2	4	60.0	100.0	85.7	71.4	60.0	50.0	57.1
2	4	66.7	57.1	14.3	57.1	80.0	16.7	85.7
2	4	20.0	57.1	71.4	57.1	60.0	33.3	28.6
2	4	50.0	71.4	28.6	28.6	80.0	83.3	85.7
2	4	16.7	42.9	28.6	28.6	80.0	16.7	57.1
2	4	33.3	14.3	14.3	00.0	00.0	16.7	14.3
2	5	50.0	71.4	71.4	57.1	60.0	50.0	85.7
2	5	60.0	71.4	57.1	71.4	60.0	83.3	100.0
2	5	66.7	57.1	71.4	42.9	60.0	83.3	57.1
2	5	33.3	71.4	85.7	42.9	60.0	66.7	85.7
2	5	50.0	28.6	57.1	71.4	80.0	83.3	71.4
2	5	50.0	100.0	71.4	57.1	60.0	83.3	57.1
2	5	33.3	71.4	71.4	57.1	60.0	66.7	100.0
2	5	66.7	71.4	57.1	71.4	60.0	33.3	42.9
2	5	66.7	57.1	57.1	57.1	80.0	00.0	57.1
2	5	50.0	85.7	71.4	57.1	80.0	83.3	71.4

Sch.	Level	A1	A2	A3	B1	B2	B3	C1
3	1	66.7	71.4	00.0	28.6	40.0	00.0	57.1
3	1	50.0	00.0	14.3	28.6	00.0	00.0	42.9
3	1	33.3	14.3	00.0	71.4	00.0	00.0	28.6
3	1	16.7	71.4	71.4	71.4	60.0	50.0	71.4
3	1	16.7	71.4	00.0	14.3	20.0	00.0	00.0
3	1	16.7	00.0	14.3	71.4	20.0	16.7	28.6
3	1	00.0	71.4	57.1	85.7	00.0	16.7	71.4
3	1	100.0	57.1	71.4	28.6	20.0	00.0	28.6
3	1	00.0	42.9	42.9	57.1	40.0	16.7	42.9
3	2	33.3	28.6	57.1	42.9	40.0	33.3	71.4
3	2	16.7	57.1	57.1	85.7	60.0	40.0	57.1
3	2	50.0	14.3	28.6	57.1	40.0	50.0	57.1
3	2	20.0	42.9	14.3	71.4	80.0	00.0	57.1
3	2	16.7	00.0	00.0	57.1	00.0	00.0	28.6
3	2	00.0	00.0	28.6	28.6	00.0	16.7	71.4
3	2	16.7	14.3	28.6	28.6	00.0	00.0	28.6
3	2	40.0	42.9	14.3	57.1	00.0	50.0	42.9
3	2	33.3	42.9	57.1	28.6	00.0	33.3	71.4
3	2	16.7	00.0	57.1	57.1	00.0	00.0	14.3
3	3	80.0	71.4	85.7	71.4	80.0	83.3	71.4
3	3	60.0	42.9	14.3	42.9	00.0	00.0	28.6
3	3	33.3	42.9	00.0	71.4	00.0	33.3	71.4
3	3	20.0	85.7	85.7	57.1	80.0	33.3	100.0
3	3	50.0	57.1	85.7	71.4	20.0	00.0	85.7
3	3	50.0	28.6	42.9	57.1	40.0	16.7	57.1
3	3	00.0	14.3	14.3	57.1	60.0	00.0	57.1
3	3	60.0	14.3	14.3	100.0	60.0	83.3	71.4
3	3	33.3	28.6	00.0	42.9	00.0	00.0	57.1
3	3	33.3	14.3	71.4	42.9	20.0	16.7	57.1
3	4	60.0	71.4	57.1	28.6	80.0	66.7	71.4
3	4	50.0	85.7	85.7	57.1	60.0	50.0	71.4
3	4	66.7	85.7	71.4	28.6	80.0	50.0	71.4
3	4	00.0	71.4	71.4	42.9	80.0	50.0	71.4
3	4	16.7	71.4	57.1	14.3	20.0	00.0	71.4
3	4	16.7	85.7	28.6	57.1	80.0	66.7	71.4
3	4	33.3	14.3	42.9	57.1	60.0	16.7	57.1
3	4	50.0	42.9	85.7	28.6	80.0	50.0	85.7
3	4	33.3	57.1	42.9	57.1	40.0	00.0	71.4
3	4	66.7	42.9	42.9	57.1	40.0	00.0	85.7
3	5	66.7	85.7	71.4	71.4	80.0	80.0	100.0
3	5	100.0	85.7	100.0	71.4	80.0	80.0	71.4
3	5	50.0	71.4	14.3	57.1	60.0	50.0	85.7
3	5	20.0	100.0	71.4	71.4	80.0	33.3	100.0
3	5	66.7	85.7	100.0	71.4	60.0	100.0	85.7
3	5	40.0	57.1	100.0	57.1	40.0	33.3	100.0
3	5	33.3	100.0	28.6	42.9	60.0	50.0	57.1
3	5	33.3	28.6	00.0	28.6	80.0	50.0	57.1
3	5	33.3	85.7	42.9	57.1	40.0	33.3	71.4
3	5	50.0	71.4	85.7	42.9	80.0	50.0	42.9

Appendix 12: Time Adverbial Performance Data

AB	C	D	E	F	G	H
11	3	3	1	2	4	2
11	4	6	1	0	1	5
11	4	5	1	1	2	4
11	2	7	0	0	2	0
11	2	4	0	3	3	3
11	1	4	1	1	4	0
11	3	3	1	1	6	0
11	2	4	0	1	1	2
11	3	2	0	0	6	2
11	3	6	0	0	2	2
12	3	10	0	0	3	3
12	1	4	1	2	4	5
12	1	2	0	8	9	9
12	1	8	0	0	5	3
12	6	7	0	1	4	1
12	0	3	1	3	6	3
12	3	4	0	0	2	3
12	4	5	0	2	1	4
12	1	1	0	1	10	1
12	4	4	0	1	7	5
13	2	1	0	3	13	7
13	1	3	0	0	8	1
13	1	9	1	2	4	6
13	2	4	0	3	8	4
13	2	2	1	1	6	1
13	3	5	0	1	5	1
13	1	5	1	1	8	7
13	3	6	0	3	3	5
13	2	9	0	1	3	2
13	2	6	0	2	8	2
14	3	5	0	1	9	3
14	4	2	0	0	8	3
14	2	4	0	3	11	5
14	6	2	1	0	11	0
14	1	3	0	1	6	6
14	1	6	0	3	9	4
14	0	5	1	0	7	2
14	1	1	0	4	7	3
14	2	5	0	0	7	4
14	5	6	0	0	8	4
15	1	2	1	4	7	7
15	1	1	1	4	11	9
15	3	2	0	5	7	11
15	3	2	0	3	9	9
15	5	5	0	1	10	4
15	1	4	0	5	4	3
15	1	3	0	4	10	4
15	1	1	0	1	11	7
15	2	4	0	1	13	8
15	3	7	0	1	3	6
21	1	3	0	2	5	4
21	4	1	0	1	4	1
21	2	6	1	0	1	1
21	4	4	1	0	4	4
21	3	6	2	0	1	0
21	3	5	1	0	3	2
21	3	6	2	0	1	2

AB	C	D	E	F	G	H
21	3	8	0	0	0	2
21	3	4	1	1	4	4
21	1	3	2	0	1	1
22	4	5	1	0	2	2
22	4	5	2	0	3	4
22	2	6	0	1	1	0
22	4	6	1	0	2	0
22	2	3	0	0	3	0
22	1	4	0	1	2	1
22	4	8	0	1	5	3
22	2	1	1	4	5	4
22	0	3	0	6	8	5
22	4	5	0	4	2	4
23	3	6	0	0	6	1
23	2	1	0	1	7	4
23	2	6	1	1	5	2
23	0	3	1	3	1	2
23	1	3	0	1	3	4
23	4	3	0	1	3	0
23	2	5	1	0	3	3
23	1	6	1	0	3	2
23	0	1	0	0	4	8
23	1	1	0	2	4	3
24	2	3	0	3	1	4
24	1	1	0	3	5	3
24	6	4	0	0	5	4
24	1	7	0	0	6	2
24	2	4	0	2	8	3
24	2	2	0	0	8	1
24	4	3	1	2	4	2
24	5	3	0	0	7	3
24	1	2	1	0	10	5
24	0	1	0	2	8	1
25	2	5	0	0	5	6
25	4	5	0	3	5	5
25	0	4	0	4	10	4
25	0	3	0	4	7	5
25	1	1	0	3	5	10
25	1	0	0	5	12	11
25	3	3	0	2	6	3
25	0	1	0	4	10	4
25	1	1	1	2	11	3
25	1	2	2	0	11	4
31	3	9	1	0	0	1
31	2	5	2	0	0	1
31	2	10	1	1	2	1
31	3	9	1	0	1	1
31	0	5	0	0	0	0
31	2	4	0	0	1	0
31	3	2	0	1	7	4
31	1	6	2	0	0	0
31	3	9	1	0	1	2
31	4	5	1	0	1	1
32	4	5	1	0	3	3
32	5	2	0	0	8	6
32	4	3	2	0	0	1
32	3	11	0	0	0	2
32	3	11	0	0	4	2
32	2	7	0	0	0	5
32	2	9	1	0	0	6

AB	C	D	E	F	G	H
32	3	8	1	0	2	1
32	4	5	0	2	1	2
32	2	9	0	0	2	2
33	4	7	0	1	5	6
33	0	8	1	0	3	4
33	3	7	1	0	1	2
33	1	7	0	2	8	0
33	0	5	0	5	10	2
33	1	4	0	5	2	4
33	4	9	0	0	1	1
33	4	4	2	2	2	4
33	1	3	0	4	6	5
33	3	6	1	0	4	5
34	2	4	2	5	6	6
34	3	3	1	0	8	5
34	1	6	2	0	11	4
34	3	5	0	3	7	4
34	0	5	0	2	10	4
34	2	5	1	0	6	4
34	2	3	0	1	5	4
34	4	3	0	0	5	0
34	2	7	0	0	8	1
34	3	7	0	0	2	3
35	3	1	0	2	12	7
35	2	2	0	4	9	9
35	2	3	1	1	10	5
35	2	3	0	3	7	6
35	1	4	1	3	9	3
35	2	0	0	11	5	10
35	1	1	3	1	1	14
35	1	2	0	1	4	5
35	2	4	0	1	8	3
35	1	8	1	2	8	7

Key

A = School
B = Level
C = Incorrect Clause
D = Incorrect Phrase
E = Incorrect Singleton
F = Correct Clause
G = Correct Phrase
H = Correct Singleton

Appendix 13: VP-Omission Data (Absolute Figures)

Sch.	Level	Score
1	1	0
1	1	1
1	1	0
1	1	1
1	1	2
1	1	3
1	1	6
1	1	7
1	1	0
1	1	4
1	2	4
1	2	2
1	2	2
1	2	5
1	2	0
1	2	3
1	2	2
1	2	0
1	2	2
1	2	0
1	3	1
1	3	4
1	3	0
1	3	0
1	3	1
1	3	2
1	3	0
1	3	0
1	3	0
1	3	0
1	4	0
1	4	0
1	4	0
1	4	1
1	4	2
1	4	0
1	4	0
1	4	1
1	4	0
1	4	0
1	5	1
1	5	0
1	5	2
1	5	0
1	5	0
1	5	0
1	5	0
1	5	1
1	5	0
1	5	1

Sch.	Level	Score
2	1	1
2	1	2
2	1	1
2	1	1
2	1	1
2	1	0
2	1	2
2	1	0
2	1	1
2	1	0
2	2	3
2	2	0
2	2	2
2	2	2
2	2	1
2	2	0
2	2	2
2	2	0
2	2	0
2	2	0
2	3	0
2	3	0
2	3	0
2	3	0
2	3	4
2	3	0
2	3	1
2	3	1
2	3	2
2	3	0
2	4	0
2	4	0
2	4	1
2	4	0
2	4	0
2	4	0
2	4	0
2	4	0
2	4	0
2	5	0
2	5	0
2	5	0
2	5	0
2	5	0
2	5	0
2	5	0
2	5	0
2	5	0
2	5	0

Sch.	Level	Score
3	1	4
3	1	0
3	1	1
3	1	1
3	1	3
3	1	1
3	1	4
3	1	1
3	1	0
3	1	1
3	2	0
3	2	0
3	2	0
3	2	0
3	2	0
3	2	0
3	2	2
3	2	1
3	2	1
3	2	4
3	3	0
3	3	0
3	3	0
3	3	0
3	3	1
3	3	0
3	3	2
3	3	0
3	3	0
3	3	0
3	4	0
3	4	0
3	4	0
3	4	0
3	4	0
3	4	1
3	4	0
3	4	0
3	4	1
3	4	0
3	5	1
3	5	0
3	5	0
3	5	0
3	5	0
3	5	0
3	5	0
3	5	0
3	5	0
3	5	0

Appendix 14: VP-Misformation Data (Absolute Figures)

Sch.	Level	Score
1	1	11
1	1	8
1	1	12
1	1	8
1	1	5
1	1	8
1	1	4
1	1	1
1	1	2
1	1	9
1	2	3
1	2	3
1	2	2
1	2	2
1	2	7
1	2	10
1	2	4
1	2	8
1	2	2
1	2	4
1	3	7
1	3	2
1	3	1
1	3	0
1	3	3
1	3	5
1	3	3
1	3	4
1	3	0
1	3	0
1	4	4
1	4	3
1	4	11
1	4	6
1	4	5
1	4	10
1	4	7
1	4	2
1	4	5
1	4	5
1	5	14
1	5	0
1	5	3
1	5	10
1	5	0
1	5	0
1	5	2
1	5	1
1	5	1
1	5	1

Sch.	Level	Score
2	2	8
2	2	8
2	2	2
2	2	4
2	2	6
2	2	2
2	2	0
2	2	3
2	3	0
2	3	5
2	3	4
2	3	0
2	3	3
2	3	13
2	3	1
2	3	8
2	3	6
2	3	8
2	4	3
2	4	0
2	4	5
2	4	1
2	4	0
2	4	1
2	4	5
2	4	2
2	4	0
2	4	5
2	5	2
2	5	0
2	5	1
2	5	0
2	5	4
2	5	1
2	5	0
2	5	0
2	5	0
2	5	0
2	1	2
2	1	0
2	1	0
2	1	7
2	1	9
2	1	9
2	1	4
2	1	7
2	1	3
2	1	1
2	2	2
2	2	8

Sch.	Level	Score
3	1	7
3	1	1
3	1	4
3	1	5
3	1	6
3	1	2
3	1	4
3	1	1
3	1	4
3	1	5
3	2	3
3	2	6
3	2	0
3	2	3
3	2	7
3	2	4
3	2	3
3	2	3
3	2	3
3	2	4
3	3	1
3	3	1
3	3	2
3	3	1
3	3	3
3	3	0
3	3	2
3	3	2
3	3	3
3	3	4
3	4	3
3	4	3
3	4	2
3	4	1
3	4	2
3	4	0
3	4	0
3	4	2
3	4	1
3	4	1
3	5	0
3	5	0
3	5	0
3	5	0
3	5	1
3	5	0
3	5	1
3	5	0
3	5	2
3	5	0

Appendix 15: Message Abandonment Data (Absolute Figures)

Sch.	Level	Score
1	1	1
1	1	0
1	1	4
1	1	2
1	1	1
1	1	1
1	1	3
1	1	4
1	1	5
1	1	1
1	2	0
1	2	3
1	2	3
1	2	3
1	2	1
1	2	3
1	2	1
1	2	1
1	2	0
1	2	0
1	3	1
1	3	1
1	3	4
1	3	2
1	3	2
1	3	1
1	3	0
1	3	6
1	3	2
1	3	1
2	1	1
2	1	1
2	1	2
2	1	1
2	1	1
2	1	2
2	1	2
2	1	3
2	1	2
2	1	9
2	2	6
2	2	1
2	2	3
2	2	1
2	2	1

Sch.	Level	Score
2	2	0
2	2	3
2	2	2
2	2	5
2	2	7
2	3	2
2	3	3
2	3	1
2	3	0
2	3	1
2	3	0
2	3	0
2	3	1
2	3	0
2	3	1
3	1	2
3	1	1
3	1	2
3	1	0
3	1	4
3	1	5
3	1	1
3	1	2
3	1	1
3	1	0
3	2	3
3	2	1
3	2	0
3	2	1
3	2	2
3	2	0
3	2	2
3	2	0
3	2	0
3	2	1
3	3	1
3	3	0
3	3	1
3	3	1
3	3	1
3	3	2
3	3	0
3	3	0
3	3	2
3	3	0

Appendix 16: Message Restructuring Data (Absolute Figures)

Sch.	Level	Score
1	1	2
1	1	5
1	1	0
1	1	0
1	1	1
1	1	0
1	1	1
1	1	0
1	1	0
1	1	0
1	2	0
1	2	2
1	2	5
1	2	2
1	2	1
1	2	0
1	2	0
1	2	1
1	2	2
1	2	2
1	3	2
1	3	0
1	3	2
1	3	2
1	3	5
1	3	1
1	3	1
1	3	1
1	3	4
1	3	3
2	1	1
2	1	1
2	1	0
2	1	0
2	1	0
2	1	1
2	1	2
2	1	0
2	1	3
2	1	0
2	2	2
2	2	1
2	2	3
2	2	1
2	2	0

Sch.	Level	Score
2	2	1
2	2	1
2	2	2
2	2	4
2	2	0
2	3	3
2	3	4
2	3	3
2	3	1
2	3	1
2	3	1
2	3	1
2	3	2
2	3	1
2	3	2
3	1	0
3	1	1
3	1	1
3	1	3
3	1	0
3	1	0
3	1	0
3	1	0
3	1	2
3	1	2
3	2	1
3	2	0
3	2	0
3	2	1
3	2	1
3	2	0
3	2	2
3	2	3
3	2	1
3	2	2
3	3	0
3	3	4
3	3	1
3	3	2
3	3	4
3	3	2
3	3	1
3	3	1
3	3	2
3	3	2

Appendix 17: 7-Tense Error Distribution (LW)

Obligatory Contexts

Level 1	A1	A2	A3	B1	B2	B3	C1
A1	121	16	9	121	8	20	17
A2		4			1		
A3			10	2		5	
B1	11		7	98	7	16	3
B2					0		
B3			2	3		2	
C1		4					10

Actual Performance

Level 2	A1	A2	A3	B1	B2	B3	C1
A1	169	11	10	136	4	32	13
A2	1	7					1
A3			10	2		3	
B1	11	1	11	129	6	26	2
B2					5		
B3		1	5	3		2	
C1	1						20

Level 3	A1	A2	A3	B1	B2	B3	C1
A1	234	9	16	99	1	7	8
A2		23					
A3	1		33	9		14	
B1	23		6	196	7	24	2
B2		5			6		
B3			1	11		16	
C1	1						32

Level 4	A1	A2	A3	B1	B2	B3	C1
A1	337	9	16	108	2	20	18
A2	3	39		2	3		
A3	2	1	39	13		21	
B1	9	1	11	179	9	22	1
B2		2		1	7	1	
B3			5	13		12	
C1	2			1			44

Level 5	A1	A2	A3	B1	B2	B3	C1
A1	374	12	14	85		8	11
A2	3	47			1		
A3			54	15		20	
B1	12		10	294	8	27	
B2	1	1		1	11		
B3	1		6	30		30	
C1			1				90

Appendix 18

Error Analysis by Item: The 'Top Three' Errors

Item	Level	(Correct %)	No.1 Error (%)		No.2 Error (%)		No.3 Error (%)	
A1								
1	1	4.0	did not live	(28.0)	not lived	(16.0)	has not lived	(12.0)
	2	0.0	did not live	(36.7)	was not lived	(13.3)	not lived	(10.0)
	3	10.3	did not live	(37.9)	has not lived	(10.3)	was not lived	(10.3)
	4	7.1	did not live	(31.0)	had not lived	(17.9)	has not lived	(10.7)
	5	25.9	did not live	(25.9)	had not lived	(14.8)	has not lived	(7.4)
16	1	44.8	is knowing	(17.2)	knew	(13.8)	has knew	(6.9)
	2	43.3	knew	(26.7)	is knowing	(13.3)	have knew	(3.3)
	3	66.7	is knowing	(13.3)	was knowing	(10.0)	has known	(3.3)
	4	86.7	knew	(3.3)	is knowing	(3.3)	has known	(3.3)
	5	78.6	has known	(17.9)	knew	(3.6)	-	
23	1	48.2	was	(29.6)	has been	(7.4)	were/will be	(3.7)
	2	37.0	was	(51.9)	has been	(7.4)	has be/will be	(3.7)
	3	13.8	was	(62.1)	has been	(13.8)	had	(6.9)
	4	34.5	was	(34.5)	had been	(13.8)	had	(13.8)
	5	30.8	has been	(30.8)	was	(26.9)	had been	(7.7)
28	1	31.0	was	(24.1)	have	(10.3)	shall be	(6.9)
	2	13.8	have	(24.1)	was	(17.2)	shall be	(13.8)
	3	13.8	have	(17.2)	was	(13.8)	will be	(10.3)
	4	17.2	have	(34.5)	will be	(10.3)	shall be	(6.9)
	5	33.3	have	(11.1)	have been	(11.1)	was/shall	(7.4)

35	1	31.0	felt	(44.8)	am feeling	(6.9)	have felt	(6.9)
	2	43.3	felt	(40.0)	am feeling	(6.7)	had felt/am feel	(6.3)
	3	53.3	felt	(36.7)	am feeling	(3.3)	am feel	(3.3)
	4	70.0	felt	(30.0)	-		-	
	5	92.9	felt	(3.6)	am feeling	(3.6)	-	
45	1	24.1	didn't know	(24.1)	have not known	(17.2)	have not knew	(6.9)
	2	20.0	didn't know	(33.3)	have not known	(6.7)	had not known	(3.3)
	3	33.3	didn't know	(36.7)	have not known	(16.7)	have not know	(6.7)
	4	23.3	didn't know	(30.0)	have not known	(30.0)	had not known	(6.7)
	5	28.6	have not known	(32.1)	didn't know	(21.4)	had not known	(7.1)
A2								
4	1	31.0	am hurry	(20.7)	hurry	(17.2)	hurrying	(6.9)
	2	40.0	am hurry	(13.3)	will hurry	(10.0)	hurry	(6.7)
	3	30.0	am hurry	(26.7)	hurry	(10.0)	shall hurry	(10.0)
	4	70.0	am hurry	(20.0)	shall hurry	(3.3)	have been hurrying	(3.3)
	5	67.9	am hurry	(10.7)	hurry	(10.7)	am being hurry	(3.6)
9	1	27.6	will go	(41.4)	going	(13.8)	go(es)	(6.9)
	2	23.3	will go	(33.3)	will going	(10.0)	went	(10.0)
	3	26.7	will go	(33.3)	will be going	(10.0)	go(es)	(6.7)
	4	60.0	will go	(23.3)	will be going	(10.0)	going	(3.3)
	5	92.9	will	(7.1)	-		-	
18	1	37.9	write	(17.2)	wrote	(17.2)	have written	(6.9)
	2	46.7	write	(20.0)	wrote	(16.7)	writing	(6.7)
	3	56.7	write	(20.0)	wrote	(6.7)	writing	(6.7)
	4	50.0	write	(33.3)	wrote	(10.0)	have written	(3.3)
	5	39.3	write	(53.6)	wrote	(7.1)	-	

33	1	37.9	still waits	(17.2)	still waited	(13.8)	was still wait	(6.9)
	2	16.7	still waited	(30.0)	was still waiting	(16.7)	still waiting/waits	(10.0)
	3	40.0	was still waiting	(16.7)	still waited	(6.7)	still waiting	(6.7)
	4	53.3	was still waiting	(13.3)	still waiting	(6.7)	is still wait	(6.7)
	5	92.9	was still waiting	(3.6)	still waits	(3.6)	-	
38	1	20.7	grows	(31.0)	grew	(13.8)	will grow	(10.3)
	2	20.0	grows	(26.7)	will grow	(16.7)	has grown/grew	(6.7)
	3	50.0	will grow	(13.3)	grows	(10.0)	was growing	(6.7)
	4	60.0	grows	(23.3)	will grow	(6.7)	has been growing	(6.7)
	5	75.0	grows	(21.4)	has been growing	(3.6)	-	
42	1	13.8	still miss	(31.0)	still missed	(13.8)	still missing	(10.3)
	2	13.3	still miss	(30.0)	still missed	(20.0)	were still missing	(13.3)
	3	16.7	were still missing	(23.3)	were still miss	(16.7)	still missing	(10.0)
	4	40.0	were still missing	(23.3)	still missing	(10.0)	have still missed	(6.7)
	5	42.9	were still missing	(21.4)	still missed	(7.1)	have still missed	(7.1)
48	1	44.8	stays	(24.1)	stayed	(6.9)	is stay	(6.9)
	2	33.3	stays	(23.3)	stayed	(10.0)	is stay	(10.0)
	3	56.7	stays	(16.7)	was staying	(10.0)	is stay	(6.7)
	4	70.0	stays	(23.3)	stayed	(3.3)	was stay	(3.3)
	5	89.3	stays	(7.1)	was staying	(3.57)	-	
A3 5	1	31.0	go(es)	(24.1)	is going	(13.8)	went	(10.4)
	2	43.3	went	(26.7)	is going	(13.3)	go(es)	(3.3)
	3	46.7	went	(20.0)	has went	(10.0)	go(es)/is going	(6.7)
	4	66.7	went	(10.0)	has went	(6.7)	is going	(3.3)
	5	96.0	went	(3.6)	-		-	

12	1	24.1	met	(30.0)	meet	(24.1)	are met	(6.9)
	2	13.3	met	(26.7)	meet	(23.3)	are meeting	(13.3)
	3	36.7	meet	(23.3)	met	(13.3)	have meet	(6.7)
	4	63.3	met	(13.3)	had met	(10.0)	am meet	(6.7)
	5	67.9	met	(7.1)	had met	(7.1)	have meet	(7.1)
22	1	37.9	don't get	(10.4)	are not getting	(6.9)	did not get	(6.9)
	2	36.7	had not got	(10.0)	have not get	(10.0)	are not get	(10.0)
	3	40.0	did not get	(13.3)	had not got	(6.7)	don't get	(6.7)
	4	40.0	had not got	(16.7)	did not get	(10.0)	don't get	(10.0)
	5	35.7	did not get	(25.0)	don't get	(25.0)	have not get	(7.1)
31	1	24.1	lost	(34.5)	lose	(17.2)	had lost	(6.9)
	2	16.7	lost	(33.3)	lose	(16.7)	had lost	(10.0)
	3	30.0	lost	(26.7)	lost	(13.3)	had lost	(13.3)
	4	36.7	lost	(26.7)	had lost	(23.3)	have lose	(6.7)
	5	57.1	had lost	(25.0)	lost	(10.7)	have lose	(3.5)
37	1	6.9	made	(51.7)	make	(24.1)	have make	(3.5)
	2	10.0	made	(30.0)	make	(23.3)	am making	(10.0)
	3	13.3	made	(33.3)	had made	(10.0)	was making	(10.0)
	4	33.3	made	(26.7)	make	(13.3)	had made	(6.7)
	5	53.6	made	(28.6)	have make	(14.3)	am making	(3.5)
41	1	20.7	don't see	(20.7)	am not see	(20.7)	am not seeing	(6.9)
	2	20.0	don't see	(23.3)	am not see	(10.0)	am not seeing	(10.0)
	3	40.0	don't see	(16.7)	am not see	(16.7)	didn't see	(10.0)
	4	46.7	am not see	(16.7)	don't see	(10.0)	am not seeing	(6.7)
	5	57.1	don't see	(21.4)	have not see	(7.1)	didn't seen	(3.6)

46	1	20.7	broke	(20.7)	break	(13.8)	have broke	(10.3)
	2	16.7	broke	(23.3)	am breaking	(16.7)	break	(10.0)
	3	33.3	broke	(16.7)	had broken	(16.7)	break	(10.0)
	4	66.7	broke	(13.3)	had broken	(3.3)	was broken	(3.3)
	5	67.9	had broken	(14.3)	broke	(7.1)	had been broken	(3.6)
B1								
2	1	6.9	visit(s)	(72.4)	is visiting	(6.9)	is visited	(6.9)
	2	13.3	visit(s)	(60.0)	is visiting	(10.0)	to visit	(6.7)
	3	33.3	visit(s)	(60.0)	visiting	(3.3)	to visit	(3.3)
	4	23.3	visit(s)	(70.0)	was visiting	(6.7)	-	
	5	42.9	visit(s)	(53.6)	was visiting	(3.6)	-	
6	1	58.6	is winning	(10.4)	win(s)	(6.9)	was won	(6.9)
	2	50.0	win(s)	(13.3)	has winned/won	(13.3)	is winning	(6.7)
	3	83.3	was won	(6.7)	has winned/won	(3.3)	had won	(3.3)
	4	73.3	has winned/won	(10.0)	had won	(10.0)	wins	(3.3)
	5	82.1	had won	(14.3)	has winned/won	(3.6)	-	
15	1	3.5	are not like	(31.0)	don't like	(27.6)	not like	(24.1)
	2	16.7	don't like	(50.0)	not like	(6.7)	have not like	(6.7)
	3	30.0	don't like	(26.7)	are not like	(16.7)	not like	(6.7)
	4	16.7	don't like	(63.3)	are not like	(6.7)	not like	(3.3)
	5	35.7	don't like	(57.1)	are not like	(3.6)	not to like	(3.6)
19	1	51.7	is	(31.0)	been	(10.4)	will be	(3.4)
	2	60.0	is	(36.7)	has be	(3.3)	-	
	3	63.3	is	(33.3)	was being	(3.3)	-	
	4	46.7	is	(46.7)	been	(3.3)	-	
	5	53.6	is	(43.3)	-		-	

26	1	44.8	am	(37.9)	have been	(6.9)	haven't be	(3.5)
	2	46.7	am	(33.3)	have	(6.7)	shall be/have been	(3.3)
	3	46.7	am	(43.3)	will be	(3.3)	have been	(3.3)
	4	6.7	am	(86.7)	will be	(3.3)	am being	(3.3)
	5	10.7	am	(89.3)	-		-	
36	1	48.3	go	(24.1)	going	(10.3)	is going	(6.9)
	2	56.7	go	(20.0)	was going	(6.7)	will go	(6.7)
	3	73.3	had gone	(10.0)	go	(6.7)	have gone	(3.3)
	4	73.3	go	(16.7)	going	(6.7)	have gone	(3.3)
	5	89.3	go	(7.1)	had gone	(3.6)	-	
47	1	69.0	is saying	(13.8)	says	(3.5)	has said/had said	(3.5)
	2	63.3	says	(13.3)	is saying	(6.7)	is say for	(3.3)
	3	73.3	says	(13.3)	has said	(6.7)	was said	(3.3)
	4	76.7	has said	(13.3)	says	(10.0)	-	
	5	82.1	says	(7.1)	has said	(3.6)	had said	(3.6)
B2								
7	1	3.5	talked	(41.4)	are talking	(27.6)	talk	(13.8)
	2	20.0	talked	(30.0)	talking	(16.7)	talk(13.3) are talking	(10.0)
	3	60.0	talked	(16.7)	talking	(6.7)	talk	(3.3)
	4	70.0	talking	(10.0)	are talking	(6.7)	talked	(3.3)
	5	78.6	talked	(10.7)	had talked	(7.1)	have been talking	(3.6)
11	1	13.8	am listening	(24.1)	listen	(20.7)	listened	(20.7)
	2	26.7	am listening	(23.3)	listen	(16.7)	listened	(16.7)
	3	66.7	am listening	(13.3)	listen	(3.3)	was listened	(3.3)
	4	80.0	am listening	(16.7)	-		-	
	5	85.7	am listening	(10.7)	had been listening	(3.6)	-	

17	1	3.5	did you do	(24.1)	are you doing	(24.1)	did you	(13.8)
	2	3.3	did you do	(40.0)	you did	(13.3)	do you do	(10.0)
	3	16.7	did you do	(50.0)	are you doing	(6.7)	did you	(6.7)
	4	40.0	did you do	(43.3)	are you doing	(6.7)	did you	(6.7)
	5	57.1	did you do	(28.6)	you did	(10.7)	had you done	(3.6)
39	1	10.3	walked	(48.3)	am walking	(20.7)	walking	(6.9)
	2	23.3	walked	(33.3)	walk	(13.3)	walking	(6.7)
	3	46.7	walked	(36.7)	am walking	(6.7)	walking/walk	(3.3)
	4	93.3	am walking	(3.3)	walked	(3.3)	-	
	5	96.4	walked	(3.6)	-		-	
43	1	6.9	has already shone	(27.6)	already shines	(17.2)	already shone	(10.3)
	2	0.0	has already shone	(23.3)	already shines	(13.3)	had already shone	(6.7)
	3	13.3	has already shone	(26.7)	had already shone	(13.3)	already shone	(10.0)
	4	10.0	had already shone	(30.0)	has already shone	(26.7)	had already shine	(6.7)
	5	3.6	had already shone	(60.7)	has already shone	(14.3)	had already shine	(7.1)
B3								
10	1	6.9	have never study	(24.1)	never study	(20.7)	was never study	(13.8)
	2	16.7	have never study	(20.0)	had never study	(10.0)	have never studied	(6.7)
	3	30.0	have never studied	(16.7)	never studied	(10.0)	never study	(10.0)
	4	40.0	have never studied	(30.0)	had never study	(6.7)	have never study	(3.3)
	5	50.0	have never studied	(32.1)	had never study	(7.1)	have never study	(3.6)
20	1	0.0	have just started	(32.1)	just start	(25.0)	just started	(10.7)
	2	10.7	just started	(17.9)	have just started	(14.3)	are just start	(14.3)
	3	23.3	have just started	(36.7)	just started	(16.7)	were just started	(6.7)
	4	31.0	have just started	(48.3)	just started	(3.5)	were just started	(3.5)
	5	61.5	have just started	(26.9)	just started	(7.7)	were just start	(3.9)

25	1	3.5	has already gone	(31.0)	already goes	(13.8)	already went	(10.3)
	2	20.0	has already gone	(20.0)	already went	(13.3)	already goes	(10.0)
	3	30.0	has already gone	(30.0)	already went	(16.7)	was already went	(13.3)
	4	56.7	has already gone	(13.3)	had already went	(13.3)	has already go	(6.7)
	5	75.0	has already gone	(14.3)	had already went	(10.7)	-	
30	1	0.0	visited	(51.7)	visits	(20.7)	visiting/is visiting	(10.3)
	2	0.0	visited	(53.3)	visits	(20.0)	is visiting	(10.3)
	3	6.7	visited	(66.7)	visits	(13.3)	visiting	(3.3)
	4	0.0	visited	(43.3)	visits	(23.3)	visiting	(20.0)
	5	21.4	visited	(57.1)	visits	(14.3)	visiting	(3.6)
34	1	3.5	went	(37.9)	goes	(13.8)	is going/has gone	(6.9)
	2	10.0	went	(26.7)	goes	(20.0)	has gone	(13.3)
	3	26.7	went	(60.0)	has gone	(6.7)	was going	(6.7)
	4	56.7	went	(26.7)	has gone	(6.7)	had went	(6.7)
	5	75.0	went	(10.7)	has gone	(7.1)	going	(7.1)
40	1	3.5	has already applied	(31.0)	has already apply	(17.2)	was already apply	(13.8)
	2	13.3	has already applied	(16.7)	already applies	(16.7)	has already apply	(13.3)
	3	23.3	has already applied	(36.7)	was already apply	(10.0)	had already apply	(6.7)
	4	43.3	has already applied	(30.0)	had already apply	(6.7)	already applied	(6.7)
	5	71.4	has already applied	(17.9)	had already apply	(3.6)	has already apply	(3.6)
C1								
3	1	20.7	do	(44.8)	are doing	(10.3)	doing	(6.9)
	2	20.0	do	(36.7)	doing	(10.0)	have done	(10.0)
	3	36.7	do	(13.3)	are doing	(13.3)	have done	(13.3)
	4	66.7	do	(16.7)	are doing	(3.3)	have done	(3.3)
	5	78.6	are doing	(14.3)	do	(3.6)	should do	(3.6)

13	1	24.1	is	(31.0)	was	(17.2)	be	(10.4)
	2	36.7	is	(36.7)	will	(10.0)	was	(6.7)
	3	60.0	is	(23.3)	will	(6.7)	was	(3.3)
	4	70.0	will	(13.3)	is	(3.3)	was	(3.3)
	5	85.7	will	(3.6)	shall be	(3.6)	would be	(3.6)
21	1	37.9	gets	(20.7)	got	(10.3)	is getting	(6.9)
	2	50.0	gets	(13.3)	got	(6.7)	is getting	(6.7)
	3	70.0	gets	(16.7)	got	(3.3)	could get	(3.3)
	4	90.0	gets	(6.7)	would get	(3.3)	-	
	5	85.7	will have got	(10.7)	-		-	
27	1	0.0	was	(44.8)	am	(10.3)	be	(10.3)
	2	10.0	was	(50.0)	am	(16.7)	I (pleased)	(6.7)
	3	10.0	was	(36.7)	am	(23.3)	have	(6.7)
	4	26.7	am	(40.0)	was	(16.7)	have/be	(3.3)
	5	28.6	am	(50.0)	was	(7.1)	have/be	(3.6)
29	1	27.6	try	(27.6)	tried	(17.2)	am trying	(10.3)
	2	46.7	tried	(23.3)	try	(13.3)	had tried	(6.7)
	3	73.3	tried	(6.7)	trying	(3.3)	had tried	(3.3)
	4	76.7	try	(10.0)	am trying	(3.3)	had tried	(3.3)
	5	82.1	would try	(10.7)	am trying	(7.1)	-	
32	1	51.7	returned	(17.2)	return	(10.3)	will returned	(3.5)
	2	70.0	returned	(20.0)	return	(6.7)	had return	(3.3)
	3	80.0	returned	(6.7)	return	(3.3)	will returned	(3.3)
	4	86.7	return	(6.7)	shall returned	(3.3)	-	
	5	85.7	would return	(7.1)	will returned	(3.6)	will	(3.6)

44	1	17.2	help	(34.5)	shall help	(20.7)	have help	(6.9)
	2	33.3	help	(16.7)	shall help	(10.0)	helped	(3.3)
	3	43.3	help	(20.0)	shall help	(13.3)	helped	(3.3)
	4	60.0	shall help	(24.1)	help	(3.3)	would help	(3.3)
	5	75.0	would help	(10.7)	help	(7.1)	shall help	(7.1)

Appendix 19: Erroneous Responses in 2 Present Perfect Contexts

VP: 'have not seen'

L1	am/are not see	(6)	cannot see	(1)
	haven't see	(3)	did not see	(1)
	had not seen	(1)	no looking	(1)
	am see	(1)	no see	(1)
	are not seen	(1)	no see face	(1)
	are did see	(1)		
L2	do(es) not see/meet	(3)	have dismeet	(1)
	did not see	(1)	have never see	(1)
	had not seen/met	(2)	have not to meet	(1)
	are not together	(1)	never seen	(1)
	am not see	(1)	not seen	(1)
	am not to see	(1)	no see	(1)
	haven't see	(2)	see	(1)
	have don't seen	(1)	were not together	(1)
L3	do not see/meet	(3)	have not been seen	(1)
	have not meet	(3)	leave	(1)
	could not see	(1)	never met	(1)
	did not see	(1)	were not meet	(1)
	did not seen	(1)		
	have not to see	(1)		
L4	have not see/meet	(3)	had not been seen	(1)
	do not meet	(1)	have (since half year) haven't have (the meeting)	(1)
	did not met	(1)		
	had not seen	(1)		
	have not been seeing	(1)		
L5	have not been seen	(2)		
	have not been seeing	(1)		
	had not seen	(1)		
	had not meet	(1)		
	it was two years (ago)	(1)		

VP: have invited

L1	invited/said/told	(5)	had to speak	(1)
	call/tell/please/prepare	(5)	had asked	(1)
	am please/talk/tell	(3)	will please	(1)
	have please/meet	(2)	invanting	(1)
	will invited/brought	(2)	intvention	(1)
	have to speak	(1)		
L2	told/said/asked/called/ invented	(5)	will asked	(1)
	have invite/have invent	(2)		
	am said/am invented	(2)		
	had invited/had invented	(2)		
	invite/call	(2)		
	WILL	(1)		
L3	invite/talk/call/promise/ invate	(6)		
	invited/wanted	(2)		
	was invited/was visited	(2)		
	have been invisted	(1)		
	have decide	(1)		
	visiter	(1)		
L4	invited/invested	(6)	can invited	(1)
	invite/visite	(4)		
	had invited	(2)		
	was invited	(1)		
	have to invite	(1)		
	had invite	(1)		
L5	invited/decided/told	(5)		
	had invited/asked	(4)		
	invite/promise/invest	(3)		
	had been invited	(1)		

Appendix 20: Erroneous Responses in 2 Durative Adverbial Contexts

Adverbial: 'for a long time'

L1	soon	(2)	about two years ago	(1)
	a long time ago	(1)	for many times	(1)
	in long time	(1)	in one year	(1)
	is long time	(1)	one year	(1)
	long time	(1)	next year	(1)
	very long time	(1)	now	(1)
	for the long time	(1)	sometimes	(1)
	about six months	(1)		
L2	a long time	(5)	one years ago	(1)
	(very) long time	(3)	Two years	(1)
	many times	(2)	After we leave primary school	(1)
	in a long time	(1)	When we leave primary school	(1)
	long long a time	(1)	When we left the primary school	(1)
	many times ago	(1)		
L3	a long time(s)	(3)	(I met you) since three years	(1)
	a long time ago	(1)		
	long time	(1)		
	three years	(1)		
	three years ago	(1)		
	I from leave first school	(1)		
L4	a long time	(3)	When the time that we left our primary school	(1)
	a long time ago	(1)		
	about two years	(1)	There is a long time	(1)
	since half year	(1)		
	since we leaf our school	(1)		
L5	I saw you last time	(1)		

Adverbial: 'for eight months'

L1	eight month(s)	(9)	Long time	(1)
	about eight month(s)	(2)	a long time ago	(1)
	eight month(s) ago	(2)	*for a long time [position]	(1)
	last eight month	(1)	the eight hour	(1)
L2	eight month(s)	(9)	eight month long time	(1)
	at eight months	(2)	long time	(1)
	about eight months	(1)		
	eight month ago	(1)		
L3	about eight month(s)	(5)	about eight months ago	(1)
	eight months ago	(3)	for eight months ago	(1)
	eight month(s)	(2)	for about eight months ago	(1)
	about near eight month	(1)	since eight months before	(1)
L4	about eight month(s)	(4)		
	eight month	(1)		
	eight months ago	(1)		
	in these eight months	(1)		
L5	about eight months	(1)		

Appendix 21

BMDP2V Three-way ANOVA

(Level x Tense-Aspect x Task)

	SOURCE	SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARE	F	TAIL PROB.
	MEAN	3399860.99913	1	3399860.99913	1855.15	0.0000
	LEVEL	415375.07558	4	103843.76889	56.66	0.0000
1	ERROR	260237.91859	142	1832.66140		
	TSK	20.20728	1	20.20728	0.02	0.9019
	TL	5800.60856	4	1450.15214	1.09	0.3615
2	ERROR	188070.67075	142	1324.44134		
	ATV	350644.32503	6	58440.72084	96.06	0.0000
	AL	57997.64005	24	2416.56834	3.97	0.0000
3	ERROR	518341.84187	852	608.38244		
	TA	233072.66777	6	38845.44463	66.71	0.0000
	TAL	39752.04051	24	1656.33502	2.84	0.0000
4	ERROR	496120.19686	852	582.30070		

L = Level; T/TSK = Task; A/ATV = Tense-Aspect

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